

# The Mining Journal,

## RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 1193.—Vol. XXVIII.

LONDON, SATURDAY, JULY 3, 1858.

{ STAMPED.....SIXPENCE.  
{ UNSTAMPED.....FIVEPENCE.

**MR. JAMES CROFTS, MINING AND SHAREBROKER,**  
No. 1, FINCH LANE, LONDON (established 14 years), TRANSACTS every kind of BUSINESS in MINING SHARES, but, not being a DEALER, BUYS and SELLS only on orders confided to him.  
Mr. Crofts refers the readers of the Journal to his weekly article on the changes and chances of the market, on page 435, in which will be found general and particular discussions on the value of mining property, on, or irrespective of, the market; his opinions being backed by experience, but not offered as infallible. He will be happy to advise capitalists into safe investments at all times.  
Bankers: The Commercial Bank of London, Lothbury.

**MR. JAMES LANE, No. 29, THREADNEEDLE STREET,**  
MINING SHARE DEALER.

**REMOVAL.—JAMES B. BRENCHLEY to 19, TOKENHOUSE**  
YARD, LOTHBURY (by the Bank of England). Has BUSINESS in the following DIVIDEND MINES:—

As a BUYER, for cash, SHARES in—  
East Tamar. Mary Ann.  
East Russell. Par Consols.  
East Alfred. South Carn Brea.  
Herodfoot. Alfred Consols.  
As a SELLER, for immediate delivery—  
1 Basset, £202½. 5 North Frances, £23½.  
1 Buller, £250. 5 Great Alfred, £115.  
20 Camborne Vein, 7s. 10 North Bury, £26. 15 Tamar Consols, 16s. 6d.  
1 South Frances, £23½. 5 Hington Down, £4½. 10 North Robert, £3½.  
5 St. Son. Tolgus, £14½. 5 Kitty (Leland), 25 Wheel Buller, 4s. 6d.  
WANTED.—An offer for 4 Rosewarne United, 25 Devon Wheel Buller.

**PETER WATSON, ENGLISH AND FOREIGN STOCK,**  
SHARE, AND MINING OFFICES,  
3, OLD BROAD STREET, LONDON, E.C.  
The lease of my offices and adjoining buildings having expired, and the Magnetic Telegraph Company having taken the site for building a large establishment and offices, I beg to inform my friends, subscribers, and correspondents, that I have taken temporary offices as above, until the new offices are ready.

**A SPECIAL REPORT (WEEKLY) WILL APPEAR IN**  
PETER WATSON'S "MINING CIRCULAR," by his own Agents. ABRIDGED REPORTS will also be given, and important information on the present and future operations and prospects of mines throughout Cornwall and Devon, with advice thereon as to purchase or sale of shares.  
Those who desire to have copies regularly sent them will be supplied for an annual subscription of £1 1s., or 6d. per copy. PETER WATSON.  
English and Foreign Stock, Share, and Mining Offices,  
3, Old Broad Street, London, E.C.

**MR. LELEAN, BROKER AND SHARE DEALER,**  
4, CUSHION COURT, OLD BROAD STREET, LONDON.  
Commission 1½ per cent.

**TO CAPITALISTS.—RELIABLE INFORMATION MAY BE**  
obtained on application to the undersigned, in respect of MISCELLANEOUS SECURITIES generally. BANKS, INSURANCE SHARES, LAND COMPANIES, MINES (British and Foreign), RAILWAYS, FOREIGN STOCKS, and the PUBLIC FUNDS BOUGHT and SOLD at the closest market price, and at moderate commission. References given and required. JOHN BATTERS, Stock and Sharebroker,  
36, Throgmorton Street, London, E.C.

**MR. R. LINTHORNE, ENGLISH AND FOREIGN MINING**  
AGENT, 3, ADAM'S COURT, OLD BROAD STREET, LONDON.  
N.B. Business transacted in every description of stock and shares.

**MR. E. B. PALMER, MINING SHARE BROKER,**  
STOCK EXCHANGE, CHESTERFIELD, is prepared to ADVISE as to INVESTMENTS in DERBYSHIRE MINES, and issue SPECIAL REPORTS of their progress on reasonable terms.

**MR. BISHOP, MINING BROKER,**  
36, LOMBARD STREET, CITY.  
Shares bought and sold, and advice given as to investment.  
A few shares in a limited company, will pay a large per cent. for purchasing.

**JOHN GLEDHILL AND CO., MINE AGENTS, SHARE**  
BROKERS, AND GENERAL DEALERS  
MINING RECORD OFFICE, 12, SOUTH PARADE, LEEDS.  
Mines well selected are the best investments, paying from 15 to 30 per cent. on the outlay. They have to OFFER SHARES in most of the DIVIDEND and PROGRESSIVE MINES, and are ready to give every information relative to all mining matters.  
Dated July 2, 1858.

**MR. J. W. GILBERT, MINE AND SHARE DEALER,**  
ST. DAY, TRURO, CORNWALL.  
Mr. J. W. GILBERT, having had many years' practical experience as a mine agent in different parts of the county, can give reliable information to parties speculating.

**MR. BRENTON SYMONS, LAND AND MINERAL SURVEYOR,**  
LITHOGRAPHER, &c., TRURO, will be happy to UNDERTAKE SURVEYS of every description, either at home or abroad. Mr. SYMONS having an office for lithography, can offer advantages to gentlemen who require LITHOGRAPHED PLANS, SECTIONS, &c., of MINERAL PROPERTY; having the whole work under his immediate superintendence, thus saving the time and expense necessary in transmitting the plans from the surveyor to the lithographer.  
MINES SUPPLIED WITH CIRCULARS, CERTIFICATES, BOOKS, TUNWORE, and TRIBUTE PAY-SHEETS, SHARE TRANSFERS, &c. Specimens sent free by post on application.

**GEORGE SPATLEY** begs most respectfully to inform the SHAREHOLDERS in Wheel Harriett, Great Polgooth, Mary Ann, Wheel Treawny, Providence Mines, Spearhead Consols, Kelly Bray, West Par, Wheel Margaret, Redmor, South Condurrow, and Carn Brea, that he can SECURE PURCHASERS for SHARES in these MINES; and that his charge for so doing will be 2½ per cent. under £100, and 1½ per cent. for larger amounts. To any one desirous of making a purchase, the DIVIDEND MINES are SPECIALLY RECOMMENDED, as being the cheapest shares in the market, because interest is immediately accruing upon the amount invested, and shares in the safest of them can now be bought at less than seven years' purchase.  
15, Old Broad Street, London, E.C.

**MINING SHARES FOR SALE, FOR IMMEDIATE CASH.—**  
10 Sorridge, £11½. 30 Treawtha, 20s. 1 Carn Brea, £23.  
50 Wheel Harriett, £23½. 20 North Downs, £1½. 100 West Par, 17s. 6d.  
30 Wheel Glynn, 14s. 50 West Grenville, 4s. 6d. 5 North Frances, £23½.  
10 East Wh. Russell, £26. 15 Kelly Bray, £23½. 30 East Alfred, 27s. 6d.  
10 Great Wh. Alfred, £26½. 20 Tincroft, £3½. 30 Lady Bertha, 17s. 6d.  
WANTED TO PURCHASE—  
200 West Par, 16s. 1 South Tolgus, £26½. 100 Redmor, 6s.  
5 Par Consols, £18. 100 Towry, 20s.  
Apply to Wm. MICHELL, 3, Austin Friars, London, E.C.—July 2, 1858.

**HENRY GOULD SHARP, 32, POULTRY, LONDON, E.C.,**  
OFFERS the following SHARES FOR SALE, or any part, at net prices:—  
50 So. Lady Bertha, 3s. 9d. 20 Kelly Bray, £2 14s. 100 Redmor, 6s.  
20 Great Alfred, £26½. 70 Queen of Dart, 5s. 3d. 50 Lady Bertha, 18s.  
40 Vale of Towry, 21s. 6d. 30 Wheel Edward, £4½. 60 Sorridge Consols, 28s.  
15 Dale (£1 paid), 15s. 50 Wheel Harriett, 42s. 30 Great Carnon.  
Stocks and Shares of every description bought and sold. Commission 1½ per cent.  
NOTICE.—The "Capitalists' Guide" sent on receipt of two postage stamps.

**NOTICE OF REMOVAL.**  
**GEORGE BUDGE, of 4, ROYAL EXCHANGE BUILDINGS,**  
LONDON, will be glad to RECEIVE ORDERS for the PURCHASE and SALE of MINING, RAILWAY, and every OTHER DESCRIPTION of SHARES, which will be effected at the closest market prices, and with prompt attention.  
Business in East Basset, Wheel Harriett, North Frances, Kelly Bray, Carn Brea, Pendennis, North Roskeen, Vale of Towry, Great Alfred, Herodfoot, Tehidy.

**MESSRS. FULLER AND CO., 51, THREADNEEDLE STREET,**  
LONDON, continue to TRANSACT BUSINESS in BANKING, BRITISH and FOREIGN MINES, INSURANCE, RAILWAYS, &c. The great impetus given to mining, and the advantages over and above all known securities is apparent to the capitalists, who are quietly availing themselves of the opportunity afforded in securing both Dividend and Progressive Mines; the former paying safely 15 per cent., whilst the latter not only attain that state, but rise in value from 1 to 500 per cent. The following shares present every prospect of success:—  
Dale Lead. Edward. South Lady Bertha.  
Ballyvirgin. East Wheel Russell. United Mines, Devon.  
Devon Burras Burna. Hington Down. Wheel Margery.  
Basset. Tolgaden. Wheel Arthur.

**Office Hours from Ten till Four.**

**G E O R G E M O O R E,**  
DEALER IN MINING SHARES.  
1, CROWN COURT, THREADNEEDLE STREET.  
George Moore will SELL the following SHARES, or any part, to-day, at quoted prices, FREE OF ANY COMMISSION:—

**DIVIDEND.**  
5 Hington Down, £4½. 2 North Pool, £4½. 10 St. Day United, 11s. 6d.  
**NON-DIVIDEND.**  
20 Cath. and Jane, 7s. 6d. 20 Lady Bertha, 19s. 6d. 10 Wheel Agar, £2½.  
1 East Basset, £22½. 10 North Robert, £2½. 50 Wheel Florence, 15s.  
5 East Russell, £26. 10 Porkellis United, £2½. 50 West Providence, 7s. 6d.  
PURCHASERS of undoubted respectability can register transfers and receive CERTIFICATES of same previous to PAYMENT.  
In any business that GEORGE MOORE is favoured with, in which he is the buyer, he will give CASH ON RECEIPT OF TRANSFER.

**MESSRS. J. J. REYNOLDS AND SON,**  
No. 1, ROYAL EXCHANGE BUILDINGS, LONDON, E.C. ENGLISH and FOREIGN STOCK, RAILWAY, and MINING SHAREBROKERS, beg to inform their friends and the public that the present time is a FAVOURABLE OPPORTUNITY for INVESTMENT in many undertakings of a substantial character, paying dividends worthy the attention of the capitalist.  
Every information can be obtained at their offices, which their practical experience enables them to give, not only of mines and other properties of established value, but of those that are not.

**MESSRS. POWELL AND COOKE,**  
DEALERS IN MINING SHARES.  
8, HERCULES CHAMBERS, OLD BROAD STREET, LONDON.  
Messrs. POWELL and COOKE have selected about 20 Dividend and good Progressive Mines, which they consider worth buying. The Dividend Mines pay 12½ to 17½ per cent. per annum on the present market price; and the Progressive will, in all probability, considerably advance in value during the year. A list of the above, and prices of same, furnished on application.

Messrs. POWELL and COOKE are BUYERS of shares in Great Wheel Alfred, Wheel Edward, Kelly Bray, Wheel Harriett, East Wheel Russell, Vale of Towry, Wheel Mary Ann, and Catherine and Jane Consols. Business transacted at net prices.  
Dated July 2, 1858.

**JAMES HERRON** has FOR SALE the following SHARES, at the prices quoted, and FREE OF COMMISSION:—  
35 Bwch Consols, 4s. 9d. 10 Great Alfred, £6 9d. 5 Par Consols, £17½.  
15 Bon Accord, 25s. 20 Garreg, 7s. 6d. 10 Sorridge Cons., 28s. 6d.  
10 Bryntall, 38s. 10 Great Wh. Vor, 3s. 9d. 100 So. Lady Bertha, 3s. 9d.  
10 Bolling Well. 10 Grenville, 29s. 6d. 20 Tamar Consols, 17s. 9d.  
3 Craddock Moor, £34. 10 Great Hewas, 16s. 9d. 5 Tincroft, £3 13s. 9d.  
14 Cath. and Jane, 7s. 9d. 5 Hings. Down, £4 8s. 9d. 10 Treawtha, 18s. 9d.  
1 Cefn Rwyne, £4 14½. 2 Kitty (Leland), £29½. 10 Vale of Towry, 22s. 6d.  
20 Cwm Sebon, 25s. 9d. 15 Lewis. 1 Wheel Margaret.  
50 Castell, 2s. 3d. 20 Lincroft, 28s. 9d. 1 Wh. Mary Ann, £46½.  
20 Chancellorsville, 1s. 6d. 20 Lady Bertha. 5 Wheel Margery, £12½.  
10 Drake Walls, 31s. 20 Nant and Penrh., 21s. 9d. 10 Wh. Edward, £4 16s. 9d.  
1 Dev. Gt. Cons., £487½. 30 North Tavy. 5 West Basset, £24½.  
1 Ding Dong, £16. 100 New Crow Hill, 10s. 9d. 50 West Grenville.  
5 East Russell, £18 9s. 9d. 5 North Wheel Croft. 5 West Sharp Tor, £34.  
20 East Rosewarne, 11s. 9d. 5 North Basset, £23½. 50 Willow Bank, 10s.  
5 E. Wh. Rose, £6 17s. 6d. 5 North Frances, £27½. 10 W. Providence, 26s. 9d.  
5 Great Wheel Bury. 5 Penrh. and E. Crinias. 10 Wheel Harriett, £23½.  
1 Gr. and St. Aubyn, £120. 12s. 9d. 1 West Carnon, £106.

And is a PURCHASER of—  
30 Redmor, 7s. 10 Great Alfred, £6. 1 Grambler, £110.  
20 Wheel Harriett, 40s. 1 Mary Ann, £44½. 1 Devon Consols, £47s.  
2 Treawny, £25½. 5 Wh. Margery, £12½. 1 North Carnon, £290.  
2, Adam's Court, Old Broad Street, London, July 2, 1858.

**MESSRS. VIVIAN AND REYNOLDS, MINE AGENTS,**  
68, OLD BROAD STREET, LONDON, E.C.  
Messrs. VIVIAN and REYNOLDS are enabled, through the long experience of Mr. W. C. Vivian as an underground agent and manager of mines in Cornwall, and in various foreign countries, to afford information on most important mining districts; and to inspect and report on mines. They are also enabled, by the several years' acquaintance of Mr. J. J. Reynolds, Jun., with the transactions of the London share market, to obtain every advantage for those who may wish either to buy or sell mining or any other description of stock.

Messrs. VIVIAN and REYNOLDS have daily information from the principal seats of mining, which is at the service of those who may honour them with their confidence.

Messrs. VIVIAN and REYNOLDS have FOR SALE the following SHARES:—  
1 West Seton, £300. 50 So. Condurrow, 2s. 6d. 20 Great Wheel Vor, 35s.  
5 Par Consols, £18½. 10 East Alfred, £13½. 5 Alfred Consols.  
10 Sorridge, 28s. 20 North Frances, 15s. 20 Dale Shares, 15s.  
1 South Frances, £23½. 5 Great Wheel Bury. 2 North Roskeen, £22½.  
10 St. Day United, 15s. 20 East Rosewarne, 10s. 6d. 5 South Wheel Basset.  
2 St. Ives Consols, £24. 10 Wheel Harriett, £23½. 1 North Basset, £29½.  
5 Tincroft, £3 15s. 1 West Damsel, £25. 1 Carn Brea, £53½.  
5 Vale of Towry, 21s. 6d. 20 West Grenville, 4s. 6d. 5 Great Wh. Alfred, £26½.  
1 Wheel Margaret, £53. 5 West Parry Park, £4. 20 North Wh. Wrey, 7s. 6d.  
20 Camborne Vein, 8s. 6d. 5 North Croft, £4½.

**MR. WILLIAM MOORE, STOCK AND SHAREDEALER,**  
11, HERCULES CHAMBERS, OLD BROAD STREET.  
N.B. Business transacted in every description of stock and shares.

**THOMAS ROACH, MINING AGENT,**  
37, OLD BROAD STREET, E.C.  
FIFTEEN TO TWENTY, and even TWENTY-FIVE PER CENT. PER ANNUM upon current value of shares, in CORNISH TIN and COPPER MINES.  
Dividends payable two-monthly or quarterly.

**MR. R. TREDINICK, MINING ENGINEER, SENDS his**  
SELECTED LIST OF SOUND PROGRESSIVE AND DIVIDEND SHARES upon the receipt of a Fee of One Guinea.  
Review of Cornish and Devon Mining Enterprise, 6s. per copy.

Maps per post of the Buller and Basset, Great Vor, Alfred Consols, the Providence and Margaret, South Carnon, and the Devon Great Consols Districts, 2s. 6d. each.  
Cornish Mines, well selected, pay better than any other description of securities, are free from risks, and entail less responsibilities than banks and other joint-stock companies. Shares bought and sold on commission of 2½ per cent.  
Money advanced at 10 per cent. annually, for short or long periods, upon approved Mining Shares.—4, Austin Friars, Old Broad Street, London, E.C.

**MR. JAMES STRIDE** will feel most thankful to SECRETARIES, PURSERS OF MINES, MINING AGENTS, and SHARE DEALERS, for such SHARE and CASH ACCOUNTS as they can SUPPLY of his MINING TRANSACTIONS.—Address, Mining Journal office, 26, Fleet Street, London.

**MR. H. HUXHAM, COLLIERY VIEWER AND MINING**  
ENGINEER, UNDERTAKES the SURVEYING, VALUING, or AGENCY of MINERAL PROPERTY, the WINNING, WORKING, or VIEWING of COLLIERIES, &c., on moderate terms; and begs to assure those who may favour him with their commissions that all business entrusted to his charge shall receive prompt attention, and be executed with the utmost fidelity and care. References and testimonials of the highest character.  
Mr. H. HUXHAM has room for TWO ADDITIONAL ARTICLED PUPILS, who would have an excellent opportunity of attaining a thorough knowledge of practical and theoretical mining engineering.—Cwm Rhondda, Pont-y-pridd.

**ROBERT MUSHET'S CAST-STEEL, 3d. per lb., or £28 per ton,**  
net cash, suited for all ENGINEERING and MINING PURPOSES, and equal in quality to that melted from the first marks of Swedish Iron.—Apply to ROBT. MUSHET, Coleford.  
N.B. Samples sent to parties desirous of testing the steel.

**THE MIDLAND IRON COMPANY, ROTHERHAM, YORK-**  
SHIRE, MANUFACTURERS OF RAILWAY TYRES AND AXLES FOR LOCOMOTIVE ENGINES, CARRIAGE AND WAGON WHEELS. From the tests to which this iron has been submitted by engineers and railway companies during several years, its superior quality has been generally acknowledged, and can be unhesitatingly affirmed.

**MESSRS. A. J. HUTCHINGS AND CO'S**  
PATENT IMPROVED WIRE ROPE.  
SOLE MAKERS TO THE  
LORDS OF THE ADMIRALTY, THE FRENCH and TURKISH GOVERNMENTS,  
And the principal Colliery Proprietors throughout the Kingdom.

MANUFACTORY, MILL WALL, POPLAR, LONDON.  
ROUND and FLAT ROPES of every description, suitable for mining operations or other purposes, GALVANISED or UNGALVANISED, MANUFACTURED upon the newest and most improved machinery, ensuring greater pliability, durability, and strength; and is admitted by the principal colliery proprietors to be far superior to any other kind of wire-rope. The superiority of these ropes over hempen ones, in point of strength, lightness, durability, and cost, is admitted by all who have tried them.

GUIDE ROPES, SIGNAL CORD, LIGHTNING CONDUCTORS, &c.

**MR. T. P. THOMAS, MINING AUCTIONEER,**  
2, CROWN COURT, THREADNEEDLE STREET, LONDON.

**MR. T. E. W. THOMAS, MINING AGENT AND GENERAL**  
MINING SHARE DEALER,  
11, DALE STREET, LIVERPOOL.

**LINZ COLLIERY COMPANY (LIMITED).—TO BE SOLD,**  
A FEW SHARES in the above COMPANY, £295 per share paid. The first year's balance-sheet has just been rendered, showing upwards of £10 per cent. profits.—Address to "P. T." Mining Journal office, 26, Fleet Street, London.

**DEVON WHEEL BULLER.—RESIDENT AGENT WANTED**  
for this MINE.—Applications and testimonials to be sent to the secretary, Mr. George Downs, Cathedral-yard, Exeter, on or before the 8th inst.—Dated July 1, 1858.

**TO THE MINING INTEREST.—**The very numerous and great losses sustained of late years, arising from want of experience as to the most approved and economical practice in opening mines, and also in the manufacture of the best quality of British iron, has induced a GENTLEMAN, of great practice at such works, to OFFER HIS SERVICES for a limited period, with a view of carrying out the above portion of management at similar establishments; nor would he object to INSTRUCT a YOUNG GENTLEMAN interested in the works as to their MECHANICAL ENGINEERING DEPARTMENT, or in the most APPROVED SYSTEM of KEEPING THEIR ACCOUNTS by DOUBLE ENTRY—a practice greatly required at the present day. THREE superior SITES for ERECTING IRONWORKS, capable of making the best quality of iron, so much in request, may be treated for.  
Further particulars will be duly rendered on application, by letter, to "C. B.," at the Pioneer office, likeston, near Nottingham.

**NOTICE.—WANTED, by a MINER, a native of Cornwall, who is**  
practically acquainted with underground work, and has been working under the Clarendon Consolidated Mining Company of Jamaica 4½ years, a SITUATION, to join any company abroad, in a warm climate. Has a good character.—Address, Thomas GEAKE, Boushall's-lane, Lameston, Cornwall.

**WANTED, at a COLLIERY in DERBYSHIRE, a PERSON**  
competent to DIAL and SURVEY ABOVE and BELOW GROUND, MAKE WORKING and SURFACE PLANS, TAKE LEVELS and MAKE SECTIONS, and to SUPERINTEND the ERECTION of ENGINES and COLLIERY WORK generally. One would be preferred who has some practical knowledge of VENTILATION and PIT-WORK, and who would be able and willing to make himself generally useful.—Address, stating name, age, and salary, to "X. Z.," Post-office, Derby.

**FOUNDRY MANAGER WANTED.—WANTED, a thoroughly**  
COMPETENT PERSON, to TAKE the MANAGEMENT of a LARGE FOUNDRY BUSINESS, in the North of England.—Applications and testimonials to be addressed to Messrs. BOLCKOW and VAUGHAN, Middlebrook-on-Tees.

**TO ALKALI AND SULPHURIC ACID MANUFACTURERS.**  
—The ADVERTISER has had the sole management of a large manufactory for several years, and is competent to PLAN, ERECT, or MANAGE a similar concern of any magnitude, and on the most improved principles, is OPEN to TREAT with manufacturers having works at present in operation, or capitalists about to erect the same, in any part of England or abroad. Highly respectable reference as to ability and character will be given.—Communications may be addressed to "X. Y.," care of Mr. Jas. Newton Warburton, 30, Cumberland-row, Newcastle-on-Tyne.

**THE JARROW CHEMICAL COMPANY, SOUTH SHIELDS,**  
are in WANT of a SUB-MANAGER, who must be theoretically and practically acquainted with the MANUFACTURE of SULPHURIC ACID and ALKALI. Salary £150 per annum.—Applications, stating age and qualifications, must be made in writing, and be accompanied by a recommendation from present employers.

**TO CAPITALISTS.—A GENTLEMAN, who has extensive and**  
first-class machinery at work in the heavy branch of the Sheffield trade, and is practically acquainted with the manufacture of iron and steel in all its branches, is anxious to OBTAIN A PARTNER, who has sufficient capital to put down other machinery for the purpose of manufacturing steel and other iron suitable for the Sheffield trade.—Apply to Mr. Wm. UNWIN, solicitor, Queen-street, Sheffield.

**WANTED, a PARTNER in a WHOLESALE ESTABLISH-**  
MENT, who can command £2000 or £3000, where the profit is from 10 to 15 per cent., and without any risk.—Address, "A. B.," Post-office, Stokes Croft, Bristol.

**WANTED, SAMPLES OF FELSPAR, FREE FROM IRON,**  
of best quality, SWEDISH, AMERICAN, DERBYSHIRE, or CORNWALL.—To be brought, with prices, to 160, New Bond-street, W.

**MINING SETT.—WANTED TO LEASE, a SMALL MINING**  
SETT, with WATER-POWER, and the lodes at or near the surface; the neighbourhood of Ashburton or Tavistock preferred.—Address, "B. Y.," 82, Lombard-street, London.

**OSMOS HILL MINE, in NORTH STAFFORDSHIRE, and**  
near the Great Ecton Mine, presents great advantages for working at a small expense, and is NOW TO LET, with immediate possession. See the Mining Journal of 22nd May last.—Apply to Mr. JAS. BENNETT, Buckfong, Grindon, near Leek.

**TO MANUFACTURERS, ENGINEERS, AND OTHERS.—**  
TO BE DISPOSED OF, BY PRIVATE CONTRACT, a WELL-ESTABLISHED MANUFACTURING BUSINESS, in one of the best situations in BIRMINGHAM. The machinery and tools, to be taken by valuation, are by the first Manchester makers, and new within the last few years. A purchaser will have the option of purchasing or taking a lease of the premises, which are centrally situated, and particularly well arranged for manufacturing, engineering, or other trades.—For particulars and cards to view, apply to Messrs. CHESHIRE and GIBSON, 11, Bennett's-hill, Birmingham.

**TO COAL MINERS AND OTHERS.—TO BE LET, from**  
November next, the valuable VEINS and SEAMS OF COAL under about 70 acres of land, situate within six miles of Bristol, in the county of Gloucester, and close to a tramroad, communicating with a railway, and adjoining to a turnpike road, in a very populous district, with liberty to forthwith sink a shaft, and erect an engine and other requisite buildings, for raising such coal.—For particulars, apply to Mr. TRENFIELD, solicitor, Chipping Solbury.

**MINERAL BORING.—The PATENT INDIA RUBBER**  
ACCUMULATORS are APPLIED as SPRINGS to BORING RODS. Four men will work a 30 cwt. rod through a stroke of 8 in.—A drawing and description may be had of the patentee, R. E. HODGES, 44, Southampton-row, Russell-square, W.C.

**LEAD FOR EXPORTATION.—PIG-LEAD (hard and soft) SOLD**  
at LOW RATES. THE BEST PRICE given for LEAD ASHES, &c., and OLD LEAD.—ROUSELL and Co., Southwark Lead Works, Gravel-lane, London.

**INCORUSTATIONS IN STEAM BOILERS are EFFECTUALLY**  
REMOVED and PREVENTED by USING EDWD. MUFF'S COMPOSITION.—Testimonials, with directions for use, may be had at Tysers Hall, near Bradford, by post or otherwise, where orders and communications will receive prompt attention.

**SUDDEN BURSTING OF STEAM-ENGINE BOILERS**  
PREVENTED (No. 1478, Year 1858, Patent entered Jeffries Kingsley, Lieut. H. P. 3 Dragoons) by CHEAP and SIMPLE MEANS.—Apply by letter, 52, Great Cornmarket, W.C., London. Three postage stamps.

**GOLDENHILL, COBALT, NICKEL, COLOUR, BORAX, AND**  
CHEMICAL WORKS,  
NEAR STOKE-UPON-TRENT, STAFFORDSHIRE.  
JOHN HENSHALL WILLIAMSON, MANUFACTURER AND REFINER.  
Reference.—Professor Miller, King's College, London.

**NICKEL AND COBALT REFINING, and GERMAN SILVER**  
WORKS, 16, OZZELL STREET NORTH, BIRMINGHAM.

STEPHEN BARKER begs to inform the Trade that he has the following articles for sale:—  
REFINED METALLIC NICKEL. OXIDE OF COBALT. (WIRE, &c.)  
REFINED METALLIC BISMUTH. GERMAN SILVER—IN INGOTS, SHEET, NICKEL and COBALT ORES PURCHASED.

EAST WHEEL RUSSELL. WEST PAR CONSOLS.  
NORTH WHEEL ROBERT. WHEEL EDWARD.

**MR. MURCHISON'S REVIEW OF BRITISH MINING**  
FOR THE QUARTER ENDING 30TH JUNE WILL BE READY in about a week, and will contain (besides the usual Particulars of the Principal Mines, Dividends Paid, &c.) FULL REPORTS on the above MINES, just made by Capt. CHAS. THOMAS, of Dolcoath; also, a PLAN of the UNDERGROUND WORKINGS of NORTH WHEEL ROBERT.  
GREAT WHEEL ALFRED.

THE REVIEW will also contain a FULL REPORT on this MINE, by Capt. FORZ, of Basset, with a PLAN of the UNDERGROUND WORKINGS.  
To be obtained at 117, Bishopsgate-street Within, London. Price 1s.



**MOST IMPORTANT TO COLLIERY OWNERS AND COLLIERY MANAGERS.**  
**HENRY J. MORTON AND CO.**  
**GALVANISED IRONWORKS, 2, BASINGHALL BUILDINGS, LEEDS.**  
 beg to call attention to their  
**IMPROVED SIGNAL BELLS,**  
 especially prepared to meet the requirements of the new Act for the Inspection of Coal Mines. It has met with the decided approval of many large colliery owners and managers. SIMPLE, EFFICIENT, AND CHEAP. Price 15s., 17s. 6d., and 20s. each.  
**BYRAM'S PATENT ANEMOMETER,** for testing the ventilation.  
 Price £2 10s., £3 3s., and £4 4s. each.  
**STEAM PRESSURE GAUGES,** very strong and accurate, £2 and £2 12s. 6d. each.  
 For further particulars apply to  
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**FAIRBANK'S IMPROVED PATENT WEIGHING MACHINES,**  
 for the use of IRONWORKS, COLLIERIES, RAILWAYS, WAREHOUSES, STORES, &c.  
 The most ACCURATE MACHINES in use, and the cheapest.  
 MACHINES of all sizes, from 1 cwt. to 20 tons, for RAILWAY WAGONS, CARTS, or WAGONS.  
 For prices and all other information, apply to  
**HENRY J. MORTON AND CO., GALVANISED IRONWORKS, 2, BASINGHALL BUILDINGS, LEEDS.**  
 Patent Asphalting Roofing Felt, Galvanised Iron, Mining Stores, &c., in Stock.

**ARNOLD AND SONS, WIRE WORKERS, WEAVERS, AND IRONMONGERS TO HER MAJESTY.**  
 Nos. 9, 12, AND 15, FORT STREET, DEVONPORT, DEVON.  
 ARNOLD AND SONS being MANUFACTURERS OF WIRE WORK, can with confidence ensure the strongest and best quality goods to all who entrust orders to their care.  
**MINES SUPPLIED WITH BRASS AND IRON WIRE SIEVES, BRASS MACHINE BOTTOMS, IRON CYLINDER SIFTS, COPPER BOTTOMS, STAMP GRASSES, &c.**  
**MINING MATERIALS** of every description supplied on the best terms.  
 Price Lists sent on application.  
 ARNOLD AND SONS have a very extensive Stock of Furnishing, Navy, Army, and General Ironmongery.—Devonport, Three Doors above the Post-office.

**ASPHALTE OR PITCH, 4s. per ton; TAR OIL, 2d. per gallon; COMPOSITION TO PREVENT RUST IN STEAM-BOILERS, 10d. per gallon; at JNO. METCALF'S, Miles Platting Chemical Works, Manchester.**

**BENSON'S WATCHES.**  
 Excellence of design and perfection of workmanship.—*Morning Chronicle.*  
 The qualities of his manufacture stand second to none.—*Morning Advertiser.*  
 All that can be desired in finish, taste, and design.—*Globe.*  
 The watches here exhibited surpass those of any other English manufacturer.—*Observer.*  
 Those who cannot personally inspect this extensive and costly stock should send two stamps for Benson's Illustrated Pamphlet, containing important information requisite in the purchase of a watch, and from which they can select with the greatest certainty the one adapted to their use. SILVER WATCHES from 2 to 50 guineas; GOLD WATCHES, from £1 15s. to 100 guineas. Every watch warranted, and sent post paid to any part of England, Scotland, Ireland, or Wales, upon receipt of a remittance. Merchants, shipbuilders, and watch clubs supplied. Watches exchanged or repaired. Manufacturer, 33 and 34, Ludgate-Hill, London, E.C. Established 1749.

**MAPPIN'S "SHILLING" RAZORS,** warranted good by the maker, shave well for twelve months without grinding.  
**MAPPIN'S 2s. RAZORS,** shave well for three years.  
**MAPPIN'S 3s. RAZORS** (suitable for hard or soft beards), shave well for ten years.  
**MAPPIN BROTHERS, QUEEN'S CUTLERY WORKS, SHEFFIELD;** and No. 67, KING WILLIAM STREET, CITY, LONDON; where the LARGEST STOCK OF CUTLERY in the world is kept.

**MAPPIN'S ELECTRO-SILVER PLATE & TABLE CUTLERY.**  
 —MAPPIN BROTHERS (Manufacturers by Special Appointment to the Queen) are the only Sheffield makers who supply the consumer in London. Their London Show Rooms, 67 and 68, KING WILLIAM STREET, LONDON BRIDGE, contain by far the LARGEST STOCK OF ELECTRO-SILVER PLATE AND TABLE CUTLERY in the world, which is transmitted direct from their manufacturing, QUEEN'S CUTLERY WORKS, SHEFFIELD.

Fiddle Pat.	Double Thread.	King's Pat.	Illy Pat.
12 Table Forks, best quality.....	£1 16 0	£2 14 0	£3 0 0
12 Table Spoons, best quality.....	1 16 0	2 14 0	3 0 0
12 Dessert Forks, best quality.....	1 7 0	2 0 0	2 4 0
12 Dessert Spoons, best quality.....	1 7 0	2 0 0	2 4 0
12 Tea Spoons, best quality.....	1 6 0	1 4 0	1 7 0
2 Sauce Ladles, best quality.....	0 8 0	0 10 0	0 11 0
1 Gravy Spoon, best quality.....	0 7 0	0 10 0	0 11 0
4 Salt Spoons (dmt bowls), best qu.	0 6 8	0 10 0	0 12 0
1 Mustard Spoon, best quality.....	0 1 8	0 2 6	0 3 0
1 Pair Sugar Tongs, best quality.....	0 3 6	0 5 6	0 6 0
1 Pair Fish Carvers, best quality.....	1 0 0	1 10 0	1 14 0
1 Butter Knife, best quality.....	0 3 0	0 5 0	0 6 0
1 Soup Ladle, best quality.....	0 12 0	0 16 0	0 17 6
6 Egg Spoons (gilt), best quality.....	0 10 0	0 15 0	0 18 0

Complete Service.....£10 13 0.....£15 16 0.....£17 13 6.....£21 4 6  
 Any article can be had separately at the same prices.  
 One Set of Four Corner Dishes (forming eight dishes), £8 8s.; One Set of Four Dish Covers (one 20 in., one 18 in., and two 14 in.), £10 10s.; Cruet Frame (four glasses), 24s.; Full Size Tea and Coffee Service, £9 10s. A costly Book of Engravings, with prices attached, may be had on application.  
 Ord. qual. Medium qual. Best qual.  
 Two dozen Full Size Table Knives, Ivory Handles.....£4 4 0.....£3 6 0.....£4 12 0  
 1½ dozen Full Size Cheese ditto.....1 4 0.....1 14 6.....2 11 0  
 One Pair Regular Metal Carvers.....4 7 6.....0 11 0.....0 15 6  
 One Pair Extra sized ditto.....0 8 6.....0 12 0.....0 16 6  
 One Pair Forks Carvers.....7 6 0.....11 0.....0 15 0  
 One Steel for Sharpening.....0 3 0.....0 4 0.....0 6 0

Complete Service.....£4 16 0.....£6 18 6.....£9 16 6  
 Messrs. MAPPIN'S table knives still maintain their unrivalled superiority; all their blades, being their own Sheffield manufacture, are of the very first quality, with secure ivory handles, which do not come loose in hot water, and the difference in price is occasioned solely by the superior quality and thickness of the ivory handles.  
**MAPPIN BROTHERS, 67 and 68, King William-street, City, London; Manufacturer, Queen's Cutlery Works, Sheffield.**

**INVESTMENTS IN BRITISH MINES.**  
 Full particulars of the most important Dividend and Progressive Mines will be found in the Fourth Edition of

**BRITISH MINES CONSIDERED AS AN INVESTMENT.**  
 Recently published, by J. H. MURCHISON, F.G.S., F.S.S.

Mr. Murchison also publishes a QUARTERLY REVIEW OF BRITISH MINING, giving, at the same time, the Position and Prospects of the Mines at the end of each quarter. The Dividends Paid, &c. The REVIEW for the Quarter ending the 30th of June contains a Map of the Great Wreath and Leland Mining Districts, price 1s. Reliable information and advice will at any time be given by Mr. Murchison, either personally or by letter, at his offices, 117, Bishopsgate-street Within, London, where copies of the above publications can be obtained.

**OPINIONS OF THE PRESS.**  
 Mr. Murchison's new work on British Mines is attracting a great deal of attention, and is considered a very useful publication, and calculated to considerably improve the position of home mine investments.—*Mining Journal.*  
 The book will be found extremely valuable.—*Observer.*  
 A valuable little book.—*Globe.*  
 A valuable guide to investors.—*Herapath.*

Mr. Murchison takes sound views upon the important subject of his book, and has placed, for a small sum, within the reach of all persons contemplating making investments in mining shares that information which should prevent rash speculation and unproductive outlay of capital in mines.—*Morning Herald.*  
 Of special interest to persons having capital employed, or who may be desirous of investing in mines.—*Morning Chronicle.*

Parties requiring information on mining investments will find no better and safer instructor than Mr. Murchison.—*Leeds Times.*

As a guide for the investment of capital in mining operations is inestimable. One of the most valuable mining publications which has come under our notice, and contains more information than any other on the subject of which it treats.—*Derby Telegraph.*

To those who wish to invest capital in British Mines, this work is of the first importance.—*Westman.*

This work enables the capitalist to invest on sound principles; it is, in truth, an excellent guide.—*Plymouth Journal.*

Persons desirous to invest their capital in mining speculations, will find this work a very useful guide.—*Warwick Advertiser.*

It is full of carefully compiled and reliable information relative to all the known mines in the United Kingdom.—*Sheffield Free Press.*

Those interested in mining affairs, or who are desirous of becoming speculators, should obtain and carefully peruse the work.—*Monmouth Beacon.*

Every person connected, or who thinks of connecting himself, with mining speculations should possess himself of this book.—*North Wales Chronicle.*

A very valuable book.—*Cornwall Gazette.*

All who have invested, or intend to invest, in mines should peruse this able work. We believe a most useful publication, or one more to be depended on, cannot be found.—*Plymouth Herald.*

With such a work in print, it would be gross neglect in an investor not to consult it before laying out his capital.—*Poole Herald.*

Mr. Murchison will be a safe and trustworthy guide, so far as British Mines are concerned.—*Bath Express.*

Of great value to capitalists.—*Sunderland Times.*

Is deserving the attention of every one who seeks profitable investment of his capital.—*Brighton Examiner.*

This is really a practical work for the capitalist.—*Stockport Advertiser.*

All who have invested, or intend to invest, in mines, would do well to consult this very useful work.—*Ipwich Express.*

To capitalists the work will prove very serviceable.—*Birmingham Mercury.*

**THE PRACTICAL MECHANICS' JOURNAL (Part 124,**

1st July, Monthly, &c.) contains a Large Plate Engraving of Messrs. Cockey's Self-Regulating Gas Valves, and Fifty Wood Engravings, with Original Articles on the new Great Exhibition, History of the Sewing Machine, Mechanical Notes from America, High-Speed Grinding Mill with Vertical Stones, Exhibition at the Society of Arts, Holmes' Magneto-Electric Machines, Tindall's Harmonium Gun, Cochran's Ornamental Fabrics, Atkinson's Garments, Goodwin and Boyd's Cleaning Fabrics, British Electric Machinery, Greening's Enamelling Metals, Watson's Weaving, Earl of Caithness' Stone Cutting, Owen's Mammals, Apperley's Roller Blind-Spring, Parr's Chimney Top, the Kaleidoscope, Ventilation in American Dwellings, Oil Mill Machinery, Book of Alphabets, Proceedings of Scientific Societies, Reports of Patent Law Cases, Marine Memoranda, Railway Signals, Compass Lantern, Telegraph Cable-Making Machine, McDowall's Steam Hammer, Self-acting Cartridge, Improved Sluice Valve, List of Patents and Designs Registered, &c.—Longman and Co., Paternoster-row; Editor's Offices (Offices for Patents), 47, Lincoln's Inn-Fields.

## THE PATENT REGULATING AIR-DOORS.

European and American Steam-Ship Indians, Gravesend, March 3, 1858.  
 Sir,—Having to leave Southampton at short notice, also with strange hands in the Engine Room, I was not able to devote much time to your PATENT REGULATING AIR-DOORS; yet as I was obliged to steam round with three instead of four boilers, I am happy to say I WAS ABLE TO KEEP STEAM, with your invention, MUCH BETTER THAN I EVER COULD BEFORE. The smoke was cut off in a few seconds after every change of fuel.  
 Yours, respectfully,  
 C. RICHARDSON, Chief Engineer.

Mr. J. Lee Stevens.  
 Marine Boiler Certificated, proving increase of steam ventilation of stoking rooms, cooling of funnels, and suppression of smoke, may be seen at 1, Fish-street-hill, City, London, E.C., from the *Brigadier, Sir Robert Peel, Lady Jocelyn, Princess Charlotte, Persenungu, &c.*; W. B. Lambert, Esq., European and American Steam-Ship Company; Thos. Summers, Esq., Northern Ironworks, Southampton; Jas. Mitchell, Esq., Marine Boiler Works, Deptford; Laing and Stevens, London and Newcastle, &c. And relative to Land Furnaces, from Sir Anthony Rothschild, Messrs. Keens and Welsh, and other leading establishments.

## OVERLAND ROUTE.—WEEKLY COMMUNICATION BY

STEAM TO INDIA, &c., VIA EGYPT.  
 THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS AND RECEIVE GOODS AND PARCELS FOR THE MEDITERRANEAN, EGYPT, ADEN, CEYLON, MADRAS, CALCUTTA, THE STRAITS, CHINA, and MANILLA, by their steamers leaving Southampton on the 4th and 20th of every month; and for the MEDITERRANEAN, EGYPT, ADEN, and BOMBAY, by their packets leaving Southampton about the 15th of the month.  
 For further particulars, apply at the company's offices, No. 122, Leadenhall-street; and at Oriental-place, Southampton.

STEAM UNDER SIXTY DAYS ECLIPSED.  
 The MARCO POLO of this line sailed with the steam-ship ROYAL CHARTER from Melbourne, and arrived in Liverpool eight days before her.  
 PASSAGE MONEY £14 AND UPWARDS.

## BLACK BALL LINE BRITISH AND AUSTRALIAN

EX-ROYAL MAIL PACKETS.  
 Appointed to sail from LIVERPOOL on the 5th of each Month,  
 FOR MELBOURNE, &c.

Forwarding Passengers by Steam to various Ports in AUSTRALIA AND TASMANIA.

Ship.	Register.	Burthen.	Captain.	Date.
EASTERN CITY.....	1364	3000	JOHNSTON	5th July.
CHAMPION OF THE SEAS.....	2480	4500	M'KIBBY	5th August.
GREAT TASMANIA.....	2140	4500	BREWSTER	5th September.
BRITISH TRIDENT.....	1555	3000	O'NEILL	5th October.
LIGHTNING.....	2090	4500	BYRNE	5th November.
MARCO POLO.....	1625	4500	CLARKE	5th December.

The Black Ball Line is the LARGEST, the FINEST, and FASTEST MERCHANT SHIPS in the WORLD, and have been built by the most celebrated builders of the day, including M'Kay, of Boston. They are commanded by men who have already rendered themselves famous, and their equipments and accommodations are unequalled by any line of ships afloat.

The Black Ball Line has had the distinguished honour of a visit from Her Majesty the Queen, who was most graciously pleased to say that she had no idea there were such magnificent ships in her merchant navy.

Freight and passage, apply to the owners, JAMES BAINE and Co., Liverpool; or to T. M. MACRAE and Co., 2, Moorgate-street, London, E.C.

## WHITE STAR LINE OF BRITISH AND AUSTRALIAN

EX-ROYAL MAIL PACKETS.  
 SAILING BETWEEN LIVERPOOL AND MELBOURNE, on the 20th and 27th of every month, and forwarding Passengers by Steamers at through rates to ALL PARTS OF AUSTRALIA.

To the consignments of H. T. Wilson and Co., Melbourne. To sail.

Ship.	Captain.	Register.	Burthen.	To sail.
RED JACKET.....	M. H. O'HALLORAN	2460	5000	July 20.
WHITE STAR.....	T. C. C. KERR	2360	5000	Aug. 20.
MERMAID.....	E. DEVEY	1320	4000	Aug. 27.
SHALIMAR.....	J. R. BROWN	1432	4000	Sept. 20.
GOLDEN ERA.....	H. A. BROWN	1556	4300	Oct. 20.

The following passages denote her extraordinary speed:—From Liverpool to Melbourne in 69 days, Melbourne to Liverpool in 68 days, Liverpool to Melbourne in 68 days, and England to Melbourne in 63 days. Her saloons are sumptuously furnished, a cow, piano, library, and linen provided for cabin passengers.

The celebrated clipper *White Star* made her last passage from Liverpool to Melbourne in 69 days; and on her last homeward passage she beat the celebrated steam-ship *Royal Charter* ten days from port to port. She has made the astonishing run of 3267 miles in ten successive days.

Passengers embark on the 19th of every month.

For freight or passage, apply to H. T. WILSON and CHAMBERS, 21, Water-street, Liverpool; or to GRINDLAY and Co., agents, 63, Cornhill, London.

## AUSTRALIA.—THE "WHITE STAR."

Captain T. C. C. KERR.  
 WHITE STAR EX-ROYAL MAIL PACKETS.

The celebrated mail clipper "WHITE STAR," 2363 tons register, 5000 tons burthen, WILL BE DISPATCHED on the 20th of August, with mail, cargo, and passengers. The *White Star* is celebrated for having made some of the most remarkable running on record; on her last homeward passage from Melbourne to Liverpool she beat the celebrated steam clipper *Royal Charter* ten days. Her last passage out was made in 69 days, in which occasion she ran the astonishing distance of 3267 nautical miles in ten successive days, a feat unparalleled by any ship or steamer afloat. Her saloons are sumptuously furnished, and found in bedding, linen, and all necessities; cow, piano, library for saloon passengers. Her second cabins are in the spacious deck-house. Passengers embark on the 19th August.

For freight or passage, apply to the owners, H. T. WILSON and CHAMBERS, 21, Water-street, Liverpool; or to GRINDLAY and Co., agents, 63, Cornhill, London.

## INFALLIBLE PREVENTIVE AGAINST THE EXPLOSION OF BOILERS.

**WILLIAM PARSON'S NEW PATENT APPARATUS**  
 FOR THE PREVENTION OF BOILER EXPLOSIONS, AND SELF-ACTING WATER FEED.

THIS INVENTION POSSESSES the following immense ADVANTAGES:—

1. PERFECT PROTECTION FROM EXPLOSION.

2. GREAT SAVING IN WEAR AND TEAR OF BOILERS, which, under ordinary circumstances, become much injured through defective pumps, loose joints, or leakage.

3. Should the pumps from any cause not supply the necessary quantity of water, and thereby the boiler become over-heated, the APPLIANCES are so arranged as most infallibly to ALLOW the WHOLE of the STEAM TO ESCAPE before the possibility of an accident can occur.

4. A GREAT ECONOMY IN THE CONSUMPTION OF FUEL.

5. THE APPARATUS can be FIXED in a few hours to ANY BOILER now in use. If its soundness is questionable, it will render it perfectly safe; and, upon a boiler becoming out of use, the apparatus can be removed to another.

6. It will give IMMEDIATE and CUREING INDICATION of the LEAST DEFICIENCY OF WATER, without a possibility of the apparatus being tampered with.

The whole apparatus is of the most simple description, and of very moderate cost. It met with great approval in the Exhibition at the Annual Conference of the President of the Institution of Civil Engineers in London in May last, and has been inspected by the chief engineers of the day, who have all expressed a decided opinion as to its complete efficiency; beyond this it has been in constant work, with uniform success, for a period of nine months.

Extract from the Report of C. MAY, Esq., C.E., Great George-street, London:—"I consider that, with the whole invention applied, an explosion is all but an impossibility; and having witnessed the application to a high-pressure boiler at the works of the patentee, I can fully recommend it as sound in principle and efficient in its action."

Circulars, with copies of reports, will be forwarded on application to Mr. GREEN, 72, Old Broad-street, London, where models and drawings may be seen, and orders obtained for the inspection of the apparatus itself in full work at the manufactory.

## AIR VERSUS STEAM.—THE PERSON IN CHARGE OF THE

ELIZABETH ANN WILL SHOW THE PROCESS, OR ALLOW ANY ONE TO WORK THE PADDLES, and judge for himself. The great secret of Mr. GOODLEY's patent lies in being able to form a vacuum with a slack piston. The piston at every alternate stroke of the engine leaves an empty space, or vacuum, for the air to rush into, and thus produces an impulse superior to steam.

£1 per horse-power for making the engine.

£2 per horse-power per annum for the use of the patent, during its currency.

Apply to GEORGE GOODLEY, Patentee, 7, John's-place, Leith.—July 1, 1858.

## THOS. GEMMELL AND CO., WIRE ROPE MANUFACTURERS,

WORKS, FIRHILL ROAD, SPRINGBANK, GLASGOW.

WAREHOUSES—Finniston Quay, Glasgow; 10, King-street, Liverpool; 43, Marichal-street, Aberdeen; 46, Osborn-street, Hull.

AGENTS—HENRY J. MORTON and Co., 2, Basinghall-buildings, Leeds.

GEORGE CUTRIM, Liverpool-road, Stoke-upon-Trent.

ISAAC NATLEY, Didsdale, near Dudley.

J. WADDINGTON, 109, Millgate, Wigan.

THOMAS REID, 33, Quay-side, Newcastle-upon-Tyne.

## BRICKS.—MESSRS. OATES AND INGRAM inform brick makers

on an extensive scale that their PATENT SOLID BRICK MACHINE is now THOROUGHLY and EFFICIENTLY TESTED, and are prepared to OFFER the following counties to the trade, in districts, either by ROYALTY or PURCHASE:—Middlesex, Surrey, Sussex, Kent, Norfolk, Suffolk, Cambridge, Oxford, Gloucester, Hertford, Berks, Bucks, Huntingdon, Devon, Cornwall, Dorset, Wilts, Hants, and Isle of Wight.

With this PATENT MACHINE the ordinary surface clay requires no preparation whatever, whilst that of a rocky nature has merely to be passed through rollers in the machine, and THENCE WITHOUT ANY TEMPERING, INTO THE MACHINE, FROM THE BRICKS ARE REMOVED DIRECT TO THE KILN IN A STATE READY FOR BURNING.

The MACHINE is now making UPWARDS OF THIRTY BRICKS PER MINUTE at the works of Messrs. KIRK and PARRY, Government contractors, Fort Elson, near Gosport; and also at the Patent Solid Brick Works of T. WELLS INGRAM, Oldbury, near Birmingham.

Application for orders to see the machine in operation to be made to Messrs. OATES and INGRAM, Bradford-street, Birmingham. Samples of clay may be sent and passed through the machine, and the bricks burnt, or a sample brick will be sent to any party wishing to see one.

## THE ONLY GAUGE GLASSES THAT WILL STAND A

PRESSURE FROM 100 lbs. TO 500 lbs.

Edinburgh, Perth, and Dundee, and Scottish Central Railways, Locomotive Department.—Perth, Dec. 20, 1856.

We have now used the Glass Tubes for Water Gauges, made by Mr. TOMEY, for three years, and can recommend them to railway engineers. I have not seen any equal to them.

ALEX. ALLAN, M. Inst. C.E., Locomotive Superintendent.

Are used on the London and North-Western, Eastern Counties, Midland, and all the principal railway lines in Great Britain.

ESCOCH TOMEY, Canal-street, Perth.

## THE LONDON AND NORTH SEA FISHERY COMPANY

(LIMITED).—Capital £100,000, in 20,000 shares of £5 each.

Deposit £1 10s. per share.—Future calls not to exceed £1 per share, payable at intervals of not less than three months.

DIRECTORS.  
 DONALD NICOLL, Esq., M.P., 14, Park-lane, Hyde-park.—CHAIRMAN OF THE BOARD OF DIRECTORS.

Mr. WM. HAGGIS FORGE, Billingsgate.—MANAGING DIRECTOR.  
 BANKERS—The Union Bank of London.  
 SOLICITORS—Messrs. Lander and Buckle, 25, Eastcheap, London.  
 SECRETARY—Mr. H. Stephenson.

OFFICES.—74, KING WILLIAM STREET, E.C.

This company is formed by parties engaged in the fishing trade, to afford a regular supply of fish to London and country markets—a want now greatly felt. They are about to place a large establishment at King's Lynn, and already possess nearly 40 vessels, ranging from 50 to 90 tons burthen, which number is to be greatly increased. The enterprise is supported by the Corporation and inhabitants of Lynn, and by the directors of the East Anglian and Eastern Counties Railways, with whom favourable arrangements have been made for the conveyance of the fish. The managers are all practical men in the trade, and the utmost economy in the administration will be exercised by the directors. The lucrative nature of this branch of trade is well known to all concerned in it.

Applications for shares to be addressed to the secretary, at the office.

## LADY ELIZA LEAD MINE (LIMITED), IN THE PARISH

OF MOTHELY, COUNTY OF CARMARTHEN.—FOR SALE, THIRTY SHARES

in this very promising property; 30s. per share has been paid-up, and any further particulars, as to prospects, &c., can be obtained of F. S. HEDDING, Esq., 25, Moorgate-street, City.—Letters to be addressed "J. T." care of Mr. Jas. Lane, 29, Threadneedle-street, City.

## MILLTOWN SILVER-LEAD MINING COMPANY, TULLA,

COUNTY CLARE, IRELAND (LIMITED).

Capital £15,000, in 3000 shares of £5 each.—First call £1 per share.

This company has been formed for the purpose of efficiently working the Milltown Silver-Lead Mine, in the county of Clare.

The lode is composed of spar, blende, mende, quartz, and lime rock, intermixed throughout with good branches of silver-lead ore, worth about £20 per ton. The blende is worth £3 10s. per ton. Large deposits of ore have been found in the same strata, and carbonate of lime in large quantities lies at the surface, suitable for burning.

The company commenced working on the 19th of April. A winze has been sunk, and the last report (27th June) mentions a course of lead and blende in the very bottom of the winze being visible, about 18 in. wide.

Specimens have been received, and may be seen at the offices of the company, No. 9, Westmoreland-street, Dublin, where also applications for shares, prospectuses, &c., may be addressed.

## BREA CONSOLIDATED TIN AND COPPER MINING

COMPANY (LIMITED),

NEAR ST. IVES, IN THE COUNTY OF CORNWALL.

In 12,000 shares of £1 each.—Deposit 10s. per share.

No future call will exceed 1s. per share, and an interval of three months will elapse between each payment.

BANKERS—Messrs. Wm. Wms. Brown and Co., 55, Commercial-street, Leeds.

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## Original Correspondence.

## BRISTOL MINING SCHOOL.

Sir,—Allow me to thank you for the support which you have so kindly rendered us relative to the BRISTOL MINING SCHOOL. I have now the pleasure of sending you Mr. Smyth's report relative to the examination, which you will see satisfactorily proves the advantages of the school. I am exceedingly anxious to see other districts establish similar institutions, and I am more and more convinced that the promotion of such schools in every colliery district will very greatly contribute to increased safety in mining and economy in the management of collieries. I think there can be a mining district in the kingdom where such an institution might not be supported. I calculate that an income of from 250*l.* to 500*l.* a year will keep up such a school in a state of thorough efficiency, varying, of course, according to the circumstances of the district.

I think the difficulty in starting mining schools has partly arisen from going too high at first, by endeavouring to establish a Mining College for the higher class of viewers and managers of colliers, instead of a school for the education of mining subjects of the under-viewers and overmen, who, after all, are the class for whom there is most reason to provide, and the higher class of managers have already abundant opportunity of obtaining the education they need. Another evil to be guarded against in the establishment of mining schools is depending upon Government aid. Where this is done, in almost every case the school will languish for want of operation and support. The very effort necessary to start and sustain a school like the Bristol Mining School without Government assistance will be the best guarantee for its prosperity and success.

In conclusion, allow me to say it will at all times afford me pleasure to receive any information relative to our school; and also to receive aid, either in the recommendation of pupils, the ordering of our weekly lectures, or contributions to our funds.

HANDEL COSHAM,  
Hon. Sec. to the Bristol Mining School,  
Shortwood Lodge, June 29.

## TO THE DIRECTORS OF THE BRISTOL MINING SCHOOL.

GENTLEMEN,—It is satisfactory to be able to state that the examination which took place on the 21st and 22d inst., at the close of the second session of the school, indicates not only considerable progress on the part of the students, but increased attention to the importance of a technical education among those engaged in mining avocations. I have to lament the absence, occasioned by serious illness, of Mr. Mackworth, Her Majesty's Inspector of Coal Mines for your district, to whose valuable co-operation the school has been so much indebted, and to thank Mr. Wm. Sanders, F.G.S., for his assistance on both days with questions on the geology of the district in which he is so well versed.

As at the end of the first session, two distinct classes were present for examination. Your notice addressed to overmen, and other agents actually concerned in the management of collieries, attracted upwards of twenty of the class, on whom devolved the responsibility of superintending several hundred men, and of whom nineteen voluntarily came forward to reply to questions affecting the safety and economy of the various operations in which they are daily engaged. It would be invidious to particularise a few among this number, most of whom, it must be remembered, have no very little opportunity of instruction beyond what they have in their spare hours acquired by their own labour, and many of whom, nevertheless, proved that they are not working by mere routine without exercising judgment.

I cannot, however, refrain from mentioning the ingenious safety-cage of Mr. Harvey, of the Easton Colliery, intended to guard against the fatal effects of the breakage of the rope in shafts, and which, although very similar to an apparatus already patented, has been entirely devised by himself. From the replies of those officers and sub-officers generally, it would appear that the discipline of the coal mines of the West of England, under the application of special rules, approved by the Government Inspectors, is much improved, and ensures increased safety to the men, and that the economy of the underground transit of the minerals is also making fair progress. Three students have been in regular attendance at the classes, and were aided by their replies in writing to questions in geology and mineralogy, in the steam-engine, and on the arts of mining, as well as by *visu voce* examinations on the same day. They also exhibited plans of a small colliery surveyed by them, and the section of the sinking of a deep shaft.

It is encouraging to find not only that the number of pupils has thus increased, but also that most of them have been so steadily at work throughout the session as to have acquired a very creditable knowledge of the subjects taught them by Mr. Fryar.

I append a list of the students in the order of their proficiency, premising that whilst J. Sherborne and J. Williams have most distinguished themselves generally, James Brain and John Smallcombe have been the most successful in their map and section. The fact of a large proportion of the pupils being nearly related to persons actually engaged in mining induces the conviction that a school like yours has been a desideratum, and that further extension, especially if you can encourage the combination of underground work with the study of principles, will act as a guide to other parts of Great Britain where the want is admitted, but where, from one or other cause, no firm step of commencement has been taken. I trust that you may by degrees be the means of proving the possibility of cultivating the mental faculties of the miner, without impairing his efficiency as a workman.

London, June 25.

WARINGTON W. SMYTH.

BRISTOL MINING SCHOOL, JUNE 21 & 22, 1858.—RESULTS OF EXAMINATION OF STUDENTS.					
	Geology and Mineralogy.	Steam-engine.	Art of Mining.	Viva voce.	Total.
J. John Sherborne	125	60	130	80	395
J. Williams	135	60	120	75	390
D. Jones	115	60	105	40	320
G. O'Reilly	95	50	90	70	305
B. Brain	65	60	105	40	270
C. Parrish	65	40	100	50	255
H. Hill	65	60	90	30	245
C. Smallcombe	80	50	80	30	240
J. Smallcombe	70	40	90	40	240
H. Hemmings	30	50	90	40	210
E. Edmunds	No replies	40	80	20	140

## THE STEAM-COAL QUESTION.—No. III.

It is now the work of the mechanical engineer to take the matter in hand, and show how he can deal with a substance, the value of which he knows; but as its physical properties vary, he must adapt his instruments to use it rightly, as required.—*Mining Journal*, May 8, 1858.

Sir,—In continuation of my contribution of facts, in support of the premises laid down by you for a proper discussion of the process of combustion, with relation to varieties of steam-coal, I beg leave to trouble you with a further illustration of the most practical nature.

I obtained an order from the Corporation of the Trinity House, last year, to fit my patent regulating air-doors to the furnaces of one of the boilers in the *Argus*, Trinity steam-yacht; which order was, in the November following, extended to the second boiler of that steamer; and after a series of trials, not merely experimental, but in the performance of her regular or incidental duties, on voyages to and from different points on the British coast, and in all kinds of weather, up to the termination of June, the chief results are found to be:—

1. Prevention of flame in the funnels; and, consequently, of their being overheated.

2. Efficient ventilation of the boiler-room, by the currents of air passing through the doors.

3. Economy of fuel, the air being heated in its passage, so as not to reduce the temperature of the furnaces; which economy is equal to 10 per cent. on Welsh coal, and, I believe, 20 per cent. on West Hartley.

As a matter of course, the subversion of smoke, by the ignition of the carbonaceous gases within the boiler, inevitably follows.

What the precise details of the report are, which has been made by the Chief Engineer to the Board, I am not in a position to quote at present.

W. R. Crawford, M.P. for the City of London, has, however, given notice of a motion for a copy of that report, upon public grounds; and, as there is no doubt of his motion being acceded to by the House of Commons, I have no doubt to place it before you. Were it not contrary to the inviolable rule of the Elder Brethren of the Trinity House to give copies of such reports to any person, I venture to think that I might at this moment be in a position to submit the results of these trials to you without delay.

Meanwhile, as my veracity will not be questioned by your readers, I ask them to accept my recollection of the leading features of the report, which has been obligingly read over to me under the sanction of the Board.

As the head of this letter I have quoted a passage from your leading article

on this important subject of May 8; and I respectfully assume that I have now offered another proof that *I can adapt my instruments so as to use them rightly as required*, whether the coal be Welsh or West Hartley, and naturally so if the fuel were of any intermediate character.

Fish-street-hill, July 2.

J. LEE STEVENS.

## LIGHTING MINES WITH GAS.

Sir,—“Cornish,” in your last Journal, states that I, having been underground at South Caradon, for the purpose of ascertaining the feasibility of lighting tin and copper mines with gas, came to the conclusion, before I was down 10 fms., that it was impossible to light them so as to pay; or, in other words, so as to effect any saving over the present method of lighting them by candles. He is correct in his assertion. I arrived at this conclusion from the following information given to me on the spot:—The mine has 25 miles of underground workings, and 120 points of operation at which light is only required, and the total amount of its candle bill is 1100*l.* Now, to work these 120 points, it would require 25 miles of pipe, the cost of which, and of suitable plant at the surface for the production of gas, cannot be estimated at less than 6500*l.* as a minimum, and the simple interest on this amount, with 2 per cent. added as a sinking fund (which I consider quite necessary, considering the uncertainty of mining operations), would give 455*l.* per year; then these 120 points of operation advance at the rate of 1 yard per week on the course of the lode, which would require 120 yards of pipe, and, at 2s. per yard, will give an outlay of 12*l.* per week, or 624*l.* per annum—the two sums being added give a total of 1079*l.* per year, without the cost of gas at all, but merely interest of capital and necessary weekly outlay in pipe; while the present total amount expended in light is only, as before stated, 1100*l.*

Now, if the conditions at all other mines be the same as at this one, I cannot understand how gas can be made to supplant candles, if it be delivered into the mine by means of pipes. If it were absolutely necessary that the whole of the shafts and levels should be lighted, then the pipe running along them could be used; but here are 25 miles of pipe productive only at 120 extreme points of operation, and these points constantly advancing, and requiring the pipe to be prolonged every week at the rate of a yard. Facts, however, are stubborn things, and I should very much like to have a well-authenticated balance-sheet of gas supplied, as I have indicated, against the light from candles.

I have stated in a former letter that I believe I can devise a system entirely different to that which has hitherto been attempted, which will enable gas to be most economically used in Cornish mines, but the task which I have set myself is one which will require time, patience, and money to perfect.—*St. Neots*, June 30.

GEORGE BOWER.

## STATE OF THE THAMES—HYDRAULIC PRESSURE.

Sir,—As you have inserted some remarks in the *Mining Journal* on the state of the Thames water, and suggesting that the principle we have adopted for propelling steam-vessels would avoid the danger arising from the agitation of the water by the paddle-wheels, we are induced to give you some information regarding the invention, which is now practically proved; as a steam-vessel, the *Albert*, constructed with our propeller, has run two seasons on the Oder, in Prussia; going daily 45 miles up the river, and 45 down, without losing a trip, or incurring any expense in repairs.

A few of the important advantages of the principle, as we have applied it for propelling steam-vessels, may be briefly stated:—A much greater power is obtained from the same amount of fuel than by either paddle-wheels or screw. The propelling net being obtained by pressure on the water, as by the paddle-wheels and screw, there is no surging of the water, nor any motion of it conveyed to the banks, and so smooth is the movement, that the vessel going full speed may pass a loaded barge or wherry without any danger to either of them.

The vessel has the remarkable advantage of having all the movements required under the control of the seamen on the deck, and all without any change being made in the engines, or communication with those attending them. The vessel is made to stop, back, go slow ahead or astern, or turn to either side, with as great facility and ease as moving the rudder, and with a power that cannot be obtained by the rudder; indeed, the vessel may be navigated without it. To avoid collision or danger, the vessel may be instantly backed in an inconceivable short distance, although going at full speed, having all the power of the engine to effect it. A person falling overboard might in this way be saved before a boat could reach him. These are facts that can be attested, and we consider them deserving the attention of those interested in steam navigation. We may also mention, that in ocean steam-going vessels the propelling power is not affected by the rolling or plunging in heavy seas, where so much care and incessant attention is required in attending to the engines of paddle-wheels and screw-vessels.

We do not wish to extend this with further particulars, they will be given if required; and shall only add, that, with regard to the Thames, we shall give a free license, and all the aid required, to the first party adopting our propeller on it.

J. AND M. W. RUTHVEN, Engineers.

Edinburgh, June 30.

## MAIN DRAINAGE OF THE METROPOLIS, AND PURIFICATION OF THE THAMES.

Sir,—May I beg the favour of your inserting in this week's *Journal* the following economic, ready, and effectual means of draining the metropolis, and purifying the Thames, by forming across the river, either at Blackwall Reach or Bugsby's Reach, a very wide and substantial weir for preventing the flow of the tide upwards, beyond either of those points, as may be preferred; and for raising and constantly maintaining a head of water in the river above, somewhat higher than high-water level, so as to cause, during the ebb of the tide below, a rapid current in the direction of the sea through central cellular passages formed in the embankment, or masonry, of the weir, under low-water level, which passages should either consist of cast-iron, or of stone or brickwork faced with that material, to allow of slide valves, or stop gates, being connected with the internal openings thereof, as a means of regulating the relative proportions of water passing through them, and over the weir; and also of self-acting flap valves, or swing-gates, being attached to the lower openings, in the direction of the sea, to prevent the return of any water through such passages; over which weir a spacious roadway, supported upon piers, or pillars, might conveniently be formed, together with locks and swing bridges, for the passing of vessels singly through such weir, upon which roadway and swing bridges a railroad might be laid in connection with the present railways on each side of the river. And for further facilitating the passing of vessels in either direction, I should suggest the formation of a canal (or two canals, if requisite) in a direct line from East Greenwich to Woolwich Reach, with lock gates at a sufficient distance apart to form a lock (or locks) for the admission and transmission of any desired number of vessels at one operation, as well as for shortening the distance from point to point, whereby a saving of time would be effected equivalent to the time expended in passing the vessels through the locks. The advantages derivable by the carrying out these suggestions may be briefly enumerated as follows:—

1. The production of a constant upper and under current of water in the river above such weir for rapidly withdrawing any sewage matter that might rise or float upon the surface, and the latter for similarly withdrawing along the central channel of the Thames the remaining main body of sewage under low-water level from the metropolis and metropolitan districts, and for propelling and conveying away the same, also under low-water level, into the wide portion of the river at Woolwich Reach, in the direction of the sea, never again to return—at all events, beyond such weir.

2. In thereby forming the whole of the river upwards, between this weir and London Bridge, into an immense dock, wherein thousands of vessels might be loaded and unloaded at the various wharves, with equal safety and facility as in the present docks, leaving ample space between them for the passage of other vessels.

3. In wholly preventing the exposure of mud banks to the atmosphere, and in keeping under water the outlets of all the main sewers, thereby avoiding the enormous expense and delay in the construction of main intercepting sewers, and of extending the outlets of the present sewers, or of embanking the sides, and thereby narrowing and greatly deteriorating the general appearance of the river, without any certainty of accomplishing the objects in view, even when completed, and with the constant danger thereafter of some portion of the works giving way, as in the Victoria sewer.

4. In enabling the metropolis to be thoroughly drained of its sewage, and the Thames thoroughly purified of its filth, for considerably less than 1,000,000*l.* sterling; and all the work to be completed in less than twelve months from the present time, or much earlier if desired.—*June 29.*

W. H. JAMES, C.E.

Eldest son and assistant of the late unregretted originator of the modern railway system.

P.S.—For the sake of brevity, I have not made any allusion to my former suggestions in reference to these subjects, as fully described in your *Journal* of last month, which might, however, still be carried out advantageously, even in connection with my present suggestions, though not of that pressing importance, should they be adopted, particularly the deodorising and utilisation of all the excrementitious portions of London sewage, to prevent its ever being allowed again to enter and contaminate the ordinary sewers, as therein recommended.

## VEGETABLE PLANTS.

Sir,—I was glad to see, by a letter in last week's *Journal*, that a “Travelling Geologist” had taken up this subject. I would further observe that I never, either in slate formations, the cross-cut at North Croft, or at Ashburnton United, saw any timber near—indeed, the latter two are cross-cuts, and not levels. I have often noticed them (the plants) where timber is used, but they are not of the same kind, and I consider them the produce of the timber. I am not satisfied

\* See *Mining Journal*, Nos. 1160, 1163, 1166, and 1167.

## RAILWAY ACCIDENTS.

Sir,—Will you allow me, through the medium of your *Journal*, to call public attention to the absolute necessity of compelling railway companies to adopt some plan for the prevention of the generality of railway accidents.

I say the “generality” of accidents, because a few occur which no human foresight could provide against. Unfortunately, the directors of companies in general, however sagacious they may be individually, are as a body so obtuse, that if it is clearly pointed out to them that by the outlay, for instance, of 100*l.* they may ultimately save 1000*l.*, they are either incapable of appreciating the suggestion, or refuse to entertain it because the outlay might cause a decrease in their next dividend to the probable amount of one farthing per share, although the expenditure of that trifling sum might be the cause of an increase of tenfold the amount on future dividends. Being blind or inattentive to the claims of humanity or public safety, it is, therefore, through public interference alone that any such measure could be effected.

Accidents are occurring almost daily that ought to serve as terrible lessons both to the public and to railway companies. But what is the result? An accident happens, resulting in the injury or death of one or more passengers. It is duly reported in the papers, and causes more or less sensation according to the magnitude of the calamity; one or two letters may probably appear in the same papers, calling on railway companies to adopt some means to prevent a similar occurrence, and, perhaps, suggesting some plan to obtain the desired result. The company “compensates” the parties injured, or their parents or relatives, if dead, and there the matter drops until public attention is again aroused by the report of another catastrophe, and the company is again compelled to disburse further sums as compensation. Such has been the case for years; gaining experience at the cost of a deplorable loss of life and limbs, without any attempt being made to profit by it; and such, apparently, will always be the case until public interference brings the directors to a sense of the duty which they owe to the public that supports them.

From a report issued on March 26, by Capt. Galtton, to the Lords of the Committee of Privy Council for Trade, we learn that during last year (1857) there were no less than 236 persons killed and 739 injured on railways in Great Britain and Ireland. Out of 81 cases of accidents eight cases only were attributed solely to causes which could not have been guarded against, and in only 16 cases did such causes contribute to the accidents. If the death of a passenger is caused by the negligence of a railway servant, that servant can be indicted for manslaughter. According to the above-mentioned report, 73 accidents occurred last year which could have been guarded against. Some or all of these accidents must have resulted in the death of some of the passengers, and were caused by neglect—neglect of the companies in not providing the necessary means for preventing them. In simple truth and plain words, were not these so many cases of manslaughter for which the directors ought to have been indicted? Why should railway companies, by simply paying a certain sum of money as compensation, be allowed to escape the consequences of a criminal indictment for the results of their neglect, whilst the humble servant for his negligence is inevitably left to be dealt with by the law? Law and justice are supposed to be synonymous, but, if so, why should such a marked distinction be made between the rich and the poor, the high and the low? “Compensation!” What a mockery to grief and human nature. As if the payment of a sum of money could “compensate” a man for being maimed for life through the wilful and criminal negligence of a body of directors, or even “compensate” a wife for the loss of a husband, a husband for the loss of a wife, or parents the loss of a child, or a child the loss of a parent. What an accommodating conscience those worthy directors must have, if that same conscience of theirs can be tranquillised for the killing or maiming of their fellow-beings by the payment of a few hundred pounds sterling as “compensation.” Let them be treated but for once with the same severity as a simple servant would be for the same cause—that is, negligence—and I believe that a very beneficial result would be derived from the experiment.

Not wishing to trespass too much on your space, I will, if you will allow me, reserve a few remarks on the causes and prevention of railway accidents for your next Number.

AS UNSUCCESSFUL RAILWAY TRAVELLER.

P.S.—Since writing the above, I notice in the *Times* a Report of the Select Committee appointed to Enquire into the Causes of Railway Accidents. From this report, which is dated the 25th inst., I am glad to see that there is some prospect of the matter being fully investigated, and I hope with a more practical result than was derived from the previous meeting. After recapitulating different causes of accidents, the report goes on to state:—“that the strict personal supervision which alone can check the carelessness of the men employed on the lines, and detect the insufficiency of the material used on them, can best be attained by the attention of the companies themselves; and that the very serious losses they incur by any accident ought to render it sufficiently their interest to pay minute attention to these points; but cases having occurred where these questions have been neglected by railway companies, your Committee is of opinion that the Board of Trade should, in respect with the fullest powers to investigate and report to Parliament upon any accidents which may occur on railways.” Those portions of the report which I have extracted fully confirm the justness of some of my remarks in the above letter. I shall again have occasion to refer to this report in my next.

## BOILER EXPLOSIONS, AND THEIR PREVENTION.

Sir,—The late alarming boiler explosions induce me to call public attention to Mr. W. Parsons's apparatus for the prevention of boiler explosions, which was advertised in your *Journal* of last week. Feeling great interest in the subject, and having a sincere desire to see something adopted in these scientific days that would prevent the great loss of life and sacrifice of property caused by the explosion of boilers, I have been to the office, 72, Old Broad-street, and carefully inspected the whole apparatus; and my decided impression is that Mr. May's opinion, as expressed in your *Journal*, that “he considers with the whole invention applied an explosion is all but an impossibility,” is perfectly correct, and that if proprietors of boilers will only take the trouble to examine and look into the whole matter they will adopt it, and be perfectly secure.

The great merit of this invention is that it goes to the first cause of nearly all boiler explosions—a short supply of water. The self-feed attached to this apparatus ensures a sufficient supply, and retains only the exact quantity of water required; and if anything should be wrong with the pumps, and the water not be constantly flowing, either through negligence or insufficient machinery, it immediately indicates the fact by a shrill whistle, which warns every one near as well as the engineer. The other part of the apparatus, should the boiler get dangerously heated, instantly provides for the effecting of the steam, instantly relieving that sudden increase of pressure which is so alarming if allowed to continue.

I have much pleasure (speaking with considerable experience and anxiety on the subject) in adding my testimony to the value of the invention, and in recommending my mining friends, and, in fact, all possessing boilers to use the apparatus, by which I fully believe they will be relieved from any anxiety as to the preservation of their boilers from the chance of explosion.—*Finch-lane*, London, July 2.

JERU HITCHINS.

## IRONMAKING IN SOUTH WALES—QUANTITY v. QUALITY.

Sir,—Your correspondent “Puddler,” in your last week's *Journal*, ought to be promoted to a much better position in the Cwm Avon Iron-works if the Governor and Company of Copper Miners, who are reported to be the owners, would only appreciate as it deserves, the superior intelligence of such a workman. The company, under the direction of Mr. Biddulph, is now using more than 30 puddling, balling, piling, and heating furnaces, besides the grooved rollers, all patented by Henry Cort in 1784; and as they cannot expect without these inventions to realise one farthing of profit from rolled iron, they will, no doubt, follow the honourable and liberal example of Mr. Anthony Hill, Mr. Crawshaw Bailey, M.P., Mr. Richard Fothergill, Esq., Mr. Rhymer, Blaenau, Tredegar, Pen-y-darraig, Coalbrook Dale, and other iron companies in Staffordshire, Shropshire, Yorkshire, Derbyshire, and Scotland, who have honoured Cort's Testimonial Fund with their patronage long ago. Should any one feel shaky in their belief as to the importance of the indictment preferred by “Puddler” against the builders of puddling furnaces, in violation of Henry Cort's specification for quantity instead of quality, they need only ask to what “Puddler” says:—“It is impossible with the puddling furnaces, built as one-half in South Wales are built, to obtain quality, for this simple reason, the furnaces are seldom built to suit the coal.” Again he adds, “Iron is of no marketable value unless it is well boiled, and has the pearly appearance of malleable iron.” Yet “Puddler's” charge seems to be confirmed to some extent by Mr. S. B. Rogers, in his excellent work on the Theory and Practice of Metallurgy. He says, “The superior advantage of heavy rails in comparison with light has been long recognised, but the attendant increase in the cost has not been so distinct; hence the temptation to rail producers to give more heed to quantity than quality.” Such a practice, in “Puddler's” opinion, “does away with all good work-manship by overtaking his strength in the production,” and, he might have added, tends to multiply accidents, destructive to lives and limbs, over more than 50,000,000 miles of railway, traversed by more than 1100,000,000 passengers in 1854.

If “Puddler” should never have seen the specifications of Henry Cort for puddling and all other inventions, which are now published at a few pence each, I will take care he shall be furnished with them, when he will see that the boiling process is well specified; and had Cort's malleable iron not exhibited the pearly appearance alluded to by “Puddler” he never could have made, even from common ship ballast, the correct kind of cast-iron quality. Such a practice, in “Puddler's” opinion, “does away with all good work-manship by overtaking his strength in the production,” and, he might have added, tends to multiply accidents, destructive to lives and limbs, over more than 50,000,000 miles of railway, traversed by more than 1100,000,000 passengers in 1854.

The iron trade during the last 40 years has increased tenfold; and as the Cyfarthfa and Dowlais, two of the richest iron companies, have not made less than 3,000,000 tons of bar-iron by Henry Cort's inventions, during the last 70 years, and never paid a single farthing of royalty for the use of the patent rights, although the late Mr. Richard Crawshaw signed a contract to pay 10s. per ton on all rolled iron, there can be no doubt that both these respectable firms will yet honour Cort's Testimonial Fund with their patronage, instead of remitting almost the only exception among all the principal iron manufacturers in Great Britain to such an act of justice. Mr. William Truman, late engineer to the Herwall, Dowlais, and Forest Iron-works, and author of a valuable work on iron manufacture, states in his letter, dated January 30, 1857, to the editor of the *Mechanics Magazine*, that “by the publication of the specifications, Cort's claims on the nation appear in a much stronger light than previously, as we now learn his inventions in iron manufacture were not limited to puddling and grooved rollers. He appears to be the inventor of the balling or piling and heating process of the modern rolling mills.” Mr. Truman adds, that the “finer's metal process is still partially used in Dowlais, Cyfarthfa, and a majority of Welsh works; it is merely an intermediate process from the blast-furnace to Cort's puddling furnaces.” This process never can be of any marketable value till after it has been puddled and benefited by the other two inventions of Henry Cort. It is not considered of any value in Staffordshire and other iron districts, and was never



used by Henry Cort; yet it is actually contended by one of the greatest and most experienced iron millers, that puddling is not worth a farthing more than the old method. Mr. Truman estimates that no less than 8000 puddling, baling, piling, and heating furnaces, patented by Henry Cort (with no variation except to produce increased quantity), are now, with the grooved rollers, in operation in Great Britain.

Finally, as regards the puddling, it is only reasonable to assume that both "Puddler" and Mr. Rogers must have had good ground for their complaints. It is, however, only fair to reply that 30,000,000 tons of puddled iron never could have been made so successfully by British iron manufacturers during the last 70 years, as to be followed by all other nations in the world making iron with precisely the same inventions, without a very large portion, at least, having been made, not with a view to quantity alone, but more especially to quality, without heed as to expense, or the whole community at home, as well as foreign consumers, now using 2,000,000 tons annually of the same puddled iron, would long since have waged war by Act of Parliament or otherwise with the iron millers of Great Britain.

RICHARD CORT.  
16, Hemingford-terrace, Caledonian-road, Islington, June 30.

### THE DALE MINING COMPANY'S ACCOUNTS.

SIR,—I quite agree with "R. L." in your last Journal, that professional accountants do not always make the clearest statements to unprofessional eyes. Like "R. L." I could not understand the Dale Mining Company's accounts, so took pen in hand to see if I could unravel them. The following is the result, which, if you can publish in your next, I think may assist some of your readers.

10,500 shares for purchase, fully paid up	£10,500 0 0
736 shares issued, fully paid up	736 0 0
4755 shares issued, 10s. paid	2,377 10 0
Sale of lead (less dues, 27s. 13s.)	373 19 2 = £13,987 9 2
For purchase of mine, in paid-up shares	£10,500 0 0
Labour cost	2316 0 2 = £12,816 0 2
Balance in hand	£ 1,171 9 0
LIABILITIES—Cash for purchase of mine	£2000 0 0
For contingent purchase of New York machinery	1000 0 0
ASSETS—Balance in hand	£1171 9 0
Machinery at New York	1500 0 0
5009 shares unpaid	5009 0 0
4755 shares, 10s. paid (10s. to call)	2377 10 0

June 30. A. R. C.

### THE DALE MINING COMPANY'S ACCOUNTS.

SIR,—The accounts of the Dale Mining Company, framed and officially audited by me, seem to have made sufficiently plain to all concerned the precise liabilities and resources of the directors as incurred towards the former adventurers—10,500 shares of £1 each already delivered, and a further obligation of 3000, represented in part by marketable assets, per contra. These consist of Dale machinery valued at 5000, and New York machinery valued at 1500, an instalment of which (500) had been already paid by the former adventurers.

In taking exception to that balance undischarged (1000), an issue is raised which turns upon the legal construction of contracts made by and with the former adventurers—a matter beyond my province. I claim credit for having represented everything without reserve upon the face of the accounts at the earliest practicable moment, and while the opportunity still remains of interposing, if justifiable, between the statement of a claim and a definitive recognition of the obligation; at the same time, it is my pleasing duty to give credit to the directors, who, through their able secretary, afforded information much more comprehensive than is usually available in like cases, and thus supplied and published the very data which challenge opposition.

I can happily afford to disregard anonymous cavils at my professional qualifications, but I assume that the *Mining Journal* deems explanation requisite, and I volunteer it accordingly, and in recognition of its support, on former occasions, to comprehensive, intelligible, and unreserved statements of accounts as contrasting with the customary shams, which serve the ends of a clique and enslave the uninitiated. One such occasion was when I was superseded as auditor by an adept of the Salvador House school. Another was when the Journal praised my Kinzigthal accounts—a case in which no less than three-fourths of the share capital yet uncalled has been saved to the shareholders by my investigations, although in discontinuing a losing concern honourable directors make sacrifices, and my own office, a salaried one, is deprived of existence by my own deliberate act.—*Warford-court, July 1.* J. A. FRANKLIN, Professional Auditor.

### GREAT WHEEL BATTERY, AND ITS MANAGEMENT.

SIR,—Did not the remarks which my note, inserted in your Journal of June 19, elicited from your correspondent, "Verax," last week, clearly entitle them, from their general tenor and phrasing, to be considered an essay at self-defence on the part of the managing committee? I should have concluded that "Verax" had not examined the accounts himself, but written his solution at the dictation of that official. Nor should I take any notice of the statement, which is so manifestly untrue, and to which my co-shareholders that my only motive for making public the account of liabilities and assets, together with Capt. Hampton's report, was that they may be possessed of the true position of their affairs, first satisfying myself that the official statement put before the meeting was incorrect; next, that mine, carefully made from the books, was correct, and that the report, which contained much interesting and valuable information, to be paid for by the shareholders, ought not, at the *ipse dixit* of the managing committee, to be withheld from them.

I submit that the charge, as "Verax" terms the contents of my letter, does not resolve itself as he says, into the question—Whether the cost-sheet of June should be charged among the liabilities, without taking credit for the ore raised during the month? But rather—Whether any known liability or asset can with honesty be excluded from an account put before a meeting of shareholders by the committee, purporting to be a faithful statement of assets and liabilities? The month's cost was estimated, and, therefore, a certain liability, but the month's ore was, and is, unknown to this day at the offices, either in quantity or value, nor, as far as I can learn, is any estimate yet formed. This is, perhaps, best explained by "Verax" himself, when he says—"At the time the resolution was passed to abandon the mine the value had become so hard and squeezed up that scarcely an ounce of ore was left in the mine." But the difference between the balance against the mine, 1088, 10s., as shown by the books, and 451, 2s. 9d., as rendered by the committee, is 557, 7s. 3d.; and this sum, according to "Verax," represents, by implication, the month's ore, although he does not assign any specific amount to its value or estimate. Apart from this cost-sheet and ore, other known liabilities were excluded from the statement at the meeting—the miners' club money, 96s. 1s. 10d. (held in trust, I presume, by the committee of management), secretary's salary, office expenses, &c., whilst Mr. Ashwell's charges for visits to the mine were duly inserted. I earnestly invite the shareholders to examine for themselves, and say whether my statements are or are not strictly correct.

The false position into which the adventurers have been brought by this unfaithful conduct is already apparent. A claim is now urgently pressed, and funds are wanted to satisfy it. The secretary has received a written request to summon a special meeting, and several influential shareholders, I am told, have expressed their willingness to support a call, that the debts may be discharged, and the adventure released from its difficulties. This done, it appears more than probable that, with a code of rules and regulations for its future management, the infusion of new blood into the committee, and the appointment of some experienced and energetic captain to attend occasionally at the mine, supervise the works, and examine the reports, the *Wheat Battery* may soon become what many say it ought to have been years ago—a dividend-paying mine.

That this desirable object may be soon attained is the writer's sincere wish. He now leaves "Verax" to ponder over his explanations, stripped of their flimsy coverings, and in his wished-for retirement, to discourse with his usual eloquence upon his favourite subject—"commercial morality." A SHAREHOLDER OF SEVERAL YEARS' STANDING.

### Meetings of Mining Companies.

#### HOLMBUSH MINING COMPANY.

The quarterly general meeting of shareholders was held at the offices of the company, Backersbury, on Wednesday.—Mr. W. H. PILCHER in the chair.

Mr. HACKETT (the secretary) read the notice convening the meeting, and the minutes of the last, which were confirmed.—The following reports were then read:—

June 28.—The following is my report on the above mine, detailing our operations since the annual meeting in March last:—The 160, east of the diagonal shaft, has been extended 6 fathoms; in some of this driving the lode produced 1 ton of ore per fm., but in the last 4 fms. of the drive the lode has been unproductive, but as the ore ground in the level above (the 145) reached full 20 fms. further east, there is good reason to expect that a productive lode will again be met with, at that level is extended in that direction. The 160, west of the diagonal shaft, has been extended west and south through the great cross-course 4½ fathoms; this cross-course has proved to be much larger in this level than in the level above, owing, most probably, to two or three other cross-courses a little further west in the 145, having an easterly inclination, falling into the main cross-course at or about this level; this circumstance has caused considerable delay in this part of our operations, and prevented us from making that progress in this level that we anticipated. But now having surmounted the obstacle, and got through the cross-course, we hope nothing will prevent us from soon intersecting the lode to the west of it, from which we calculate shortly to be able to raise such amount of ore as will enable us to increase our returns both in quantity and quality, as I believe there is a most productive piece of ground ahead of us, between the great cross-course and the lead lode, a distance of 45 fms., all of which will be immediately available on extending the level under it. The cross-cut south from the 145 west has been extended 3 fms. 2 ft., and a lode intersected producing 1 ton of ore per fm., of good quality; on this lode a level has been extended east and west 7 fms., the lode in each end continuing equally as good as when first intersected. The 145 west, on the flap-jack lode, has been extended west 9 fms.; the lode in the greater part of this driving has been dislocated by a succession of cross-courses, between which the lode in some places has yielded 1 ton of ore per fm., and in other parts it has been unproductive. The 145 south, on the lead lode, has been driven 2 fms. 0 ft. 10 in.; the lode is producing a little lead ore interspersed in the floor-spar, of which the lode is principally composed. The 132 south, on the lead lode, has been extended on the western part of the lode 4 fms., and east by south through the lode about 4 fms., in which some good branches of silver-lead ore have been met with; but as very little has yet been done by way of driving on the lode at this point, we can only form our opinion as to the ultimate success in the extension of the lode and the situation of the ground, it being directly under the ground which in the past has produced very large quantities of lead, and from which, I think, we may reasonably expect it will be equally productive here. The cross-cut, driving north from Wall's engine-shaft, has been extended 5 fms. 5 ft., but without yet discovering any lode that will warrant the extending a level upon it; the ground in the cross-cut, until the last fathom of driving, has been generally hard, but a favourable change has now taken place, which will enable us to make a better progress in extending this level north. The 120, on the lead lode, which had fallen in and left in ruins, has been cleared and made secure, and the water from the Old Callington Mines conveyed back to the engine in its former course, without its being any further detriment to the lower part of the mine. With reference to the present prospects of the mine, I can only say in respect of the 160 west as I did in my report of March 26 last—that should the lode prove good when intersected, of which I have not the slightest doubt, we shall most certainly in that direction, between the cross-course and the lead lode, raise considerable quantities of copper ore. In the 132 south, on the lead lode, I am happy to say that the fears that were entertained for years respecting the foundation of the mine, if operations were again commenced in the 132, are all dissipated, and I hope, valuable and productive piece of ground set free for exploration; and, if we may judge from the type of lode, there is every reason to expect good results. The discovery made from cross-cutting south in the 145 west has also put a new feature on the western part of the mine: we have extended on a lode 7 fms., worth from 10l. to 12l. per fm. With the present fluctuating standard of copper ore, I deem it almost ridiculous

to say what may be the value of the ore ground in reserve; but I have no hesitation in saying that the number of tons is 1200. The following is the number of persons employed on the mine:—Tutworkmen, 64; tributaries, 32; trammers, fillers, and landers, 19; engine-men, 10; smiths, carpenters, and sawyers, 8; men on surface-work and dressing gear, 63=106.—N. SECORRE.

June 28.—You ask me, in your notice of the 25th inst., to explain the reason why there was no more lead ore sold. In reply, I beg to say that in the last three months, or since the last meeting, very little has been done in the way of raising lead ore. The 145 south has not been extended more than 2 fms. 0 ft. 10 in.; the lode yielding a little lead, interspersed in the floor-spar, we have two men working in the back of this level on tribute, one month, at 12s. 10 ft. In the 132, the level has been driven about 8 fms.; 4 fms. of this was on the western side of the lode, and 4 fms. through the lode in an oblique direction, as will be seen by reference to the plan, in which there were occasional good branches of lead found, but not enough to augment the quantity for sale to any great amount over that mentioned in my report of March 26 last. In reference to the loss sustained in the last four months, I also beg to state that, on the one hand, we, in conjunction with other mines, have materially suffered by the fall in the standard of copper ore; the produce of our ore has been very good, but it has not fetched a corresponding price with other sales some six or eight months ago. Another great impediment to our returns has been the long and troublesome distance we have had to drive through the great cross-course in the 160 west; we fully calculated to have been through it two months ago, and before this time we should have raised some good parcels of ore from that level, but in this we have been sadly disappointed from unavoidable circumstances. In my report of March 26, I said, "Looking at the position of some of our levels, I entertain a firm opinion that in the next six months we shall increase our reserves both of lead and copper, and I see no reason yet to alter my opinion, as I think better of it now than I did then." I hope this explanation will be satisfactory to the meeting.

The CHAIRMAN said he considered the last report very important, as in consequence of the falling off in the standard of the directors were anxious to know the reason, and he considered it was very satisfactorily answered—first of all, through the very large reduction in the price of ore, and, secondly, the large expense incurred in driving the cross-cuts; but he must remind them that a large portion of ground had been laid open. He (the Chairman) made these few observations, because it might appear the reports were not so favourable as they might expect, although he considered them the best they had received for some time. He would now call upon the secretary to read the accounts.

A statement of accounts was exhibited, from which the subjoined it condensed:—

Balance last audit	£ 829 19 6
Mine cost, Feb. and April	3193 15 7
Calls on 10 forfeited shares	8 0 0 = £4031 15 1
Copper ore sold	£1649 6 3
Sale of land	200 0 0
Call due May 12	956 0 0 = 2835 6 3
Balance against mine	£1196 8 10

In the estimated account of assets and liabilities, including May cost and lead and copper ore sold this month, the balance against the mine was 6447. 9s. 10d.

The CHAIRMAN said he would now propose that the report and accounts be received and adopted. The resolution was carried unanimously.

The CHAIRMAN said, at the last meeting it was proposed that they should meet every three months; that had been found extremely inconvenient, from the fact that they every alternate meeting had three months' cost, and only two months' sale of ore; and he would propose that in future the meeting be every four months, instead of quarterly.

Mr. HACKETT explained, that as they only had two months' sale in the present account, it would be right for the next meeting to be held in three months.

The CHAIRMAN then proposed that the next meeting should be held in three months, and afterwards every four months. A resolution was also passed, confining the forfeiture of shares in the case of non-payment of calls to June, 1857.

Mr. HALLETT said there was a subject he was anxious to bring before the meeting. There appeared to be a misunderstanding about the transfer of shares, as the general impression abroad was that they could not depend upon a transfer being accepted until it had passed the board on a Wednesday. Consequently, if a shareholder wanted 50l. to-morrow, he could not get his shares transferred until Wednesday next. It being well known that he was now on the board, several parties had applied to him on the subject, and he was anxious to state publicly that it was a misunderstanding altogether, and the plan adopted now was that the transfers be the same as upon the Cost-book Principle.

The CHAIRMAN said a notice shall be sent out with the next circular upon the subject, in order to disabuse the public mind.

Mr. BIRDSEY was glad Mr. Hallett had mentioned the subject, as the fact appearing in the *Mining Journal* would prove very beneficial to those desirous of selling their shares.

Mr. HALLETT said, to make the matter plainer, he would read the following rule upon the subject:—That the transfer of shares shall, as far as practicable, be in accordance with the mode adopted in mines conducted on the Cost-book Principle in Cornwall, and all transfers of shares shall be from time to time entered in a cost-book of the mine accordingly; and no person shall be, or be thought to be, considered a proprietor or shareholder in quartz crushing at Clunes, until he has proved in respect of the quartz having averaged, after five months' working, a produce of 6l. 16s. per ton. It was then agreed that, as a few months must decide the question as to whether they should go on, a meeting of the shareholders should be called as soon as such advice should be received. The mail from Australia, which arrived here on June 17, brought such intelligence as the directors considered conclusive on this subject. According to the last advices from Mr. Bland, the quartz crushing is going on very well. During the month of March 1858 tons were crushed, yielding 1884 ozs. of gold. The receipts on account of the Clunes establishment for March were 3000, 2s. 3d. Expenditure, including repairs, &c., 1848, 16s. 3d. The balance was 1371, 17s. 3d. In the balance sheet is included, in addition to the ordinary repairs and renewals, the employment of hands making alterations and preparing for the erection of the new stamps, also 1000, on account of separate winter's stock of firewood, and about the same sum for other outlay.—New Stamps: These are in course of erection by contract, and I think will be nearly completed this month. I am more than ever satisfied with the greater economy and efficiency of stamps as compared with Chilian mills. By next mail I hope to report that the stamps have commenced work.

Finance: Our position in this respect was on April 1 as follows:—Due to the Trust Company, 5000l.; Thompson, 257, 1s. 4d.;—Balance in hand, 573, 15s. 11d.; 132, leaving 1371, 17s. 3d. In the balance sheet is included, in addition to the ordinary repairs and renewals, the employment of hands making alterations and preparing for the erection of the new stamps, also 1000, on account of separate winter's stock of firewood, and about the same sum for other outlay.—New Stamps: These are in course of erection by contract, and I think will be nearly completed this month. I am more than ever satisfied with the greater economy and efficiency of stamps as compared with Chilian mills. By next mail I hope to report that the stamps have commenced work.

Mr. JAMES observed that there had been a vast deal of dead work done, which would, no doubt, bring them into profitable working. The report and letter from Capt. Secombe he considered the best received since he had been connected with the mine.

Mr. BIRDSEY enquired whether an adventurer could write off his shares upon paying up all the calls, and claim at the proper time his proportion of the property?

The CHAIRMAN: Certainly. It is conducted as nearly as possible upon the Cost-book System.—A vote of thanks to the Chairman terminated the proceedings.

### PORT PHILLIP AND COLONIAL GOLD MINING COMPANY.

An extraordinary meeting of the shareholders was held at the London Tavern, Bishopsgate-street, on Monday.—Sir CHAS. RICH, Bart., in the chair.

Mr. WILKINS (the secretary) read the notice convening the meeting, and a statement of the directors, from which the following is condensed:—

At the last general meeting of this company a strong feeling was expressed by some of the proprietors to wind-up the concerns of the company, and realise the remaining assets. The directors expressed a very confident opinion that the undertaking in quartz crushing at Clunes would prove remunerative, the quartz having averaged, after five months' working, a produce of 6l. 16s. per ton. It was then agreed that, as a few months must decide the question as to whether they should go on, a meeting of the shareholders should be called as soon as such advice should be received. The mail from Australia, which arrived here on June 17, brought such intelligence as the directors considered conclusive on this subject. According to the last advices from Mr. Bland, the quartz crushing is going on very well. During the month of March 1858 tons were crushed, yielding 1884 ozs. of gold. The receipts on account of the Clunes establishment for March were 3000, 2s. 3d. Expenditure, including repairs, &c., 1848, 16s. 3d. The balance was 1371, 17s. 3d. In the balance sheet is included, in addition to the ordinary repairs and renewals, the employment of hands making alterations and preparing for the erection of the new stamps, also 1000, on account of separate winter's stock of firewood, and about the same sum for other outlay.—New Stamps: These are in course of erection by contract, and I think will be nearly completed this month. I am more than ever satisfied with the greater economy and efficiency of stamps as compared with Chilian mills. By next mail I hope to report that the stamps have commenced work.

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Mr. BIRDSEY enquired whether an adventurer could write off his shares upon paying up all the calls, and claim at the proper time his proportion of the property?

The CHAIRMAN: Certainly. It is conducted as nearly as possible upon the Cost-book System.—A vote of thanks to the Chairman terminated the proceedings.

### QUARTZ REDUCTION COMPANY.

The adjourned annual meeting of shareholders was held at the offices of the company, Old Broad-street, on Thursday.—Mr. G. ROOPER in the chair.

The CHAIRMAN having apologised for the absence of Col. Kennedy, who had been requested to wait upon the Chief Commissioner of the Board of Works, observed that the meeting had been adjourned for four months, in order to obtain further information from California, and called upon the secretary (Mr. W. J. Vian), to read the report of directors, which is subjoined, and the correspondence which had taken place between the board in London and their agents in California:—

The directors propose briefly to lay before the proprietors a statement of what has occurred since the general meeting was adjourned from Feb. 1 last.

In accordance with the expressed wish of the shareholders at that occasion, the trustees of the company have requested the Board of Works, to state the position of the property in California, and its future prospects.—2. A schedule of the property possessed by the company in California, and the amount it would probably realise if sold.—3. Some specimens of quartz from the company's claims to be assayed in this country.

In the interval between the dispatch of these letters and the receipt of replies the monthly statements have been received, an abstract of which is laid upon the table. During the five months, from October to March, the mill only ran 75 days, and the expenditure principally for salaries, exceeded the receipts by 4600, 14s. 3d. A considerable reduction, however, has now been effected in the monthly expenditure by means of a reduction of the staff, and it does not now exceed 2831, per month, as compared with 5700, in October last.

The actual position of the company has deteriorated since the last meeting to the extent of 5611, 0s. 9d., the balance of indebtedness shown by the statement of accounts being 13955, 8s. 2d., against 8347, 7s. 6d., in February last.

The reason assigned for the small quantity of work done during the winter months was the effect of the commercial crisis in the eastern states, which caused a panic in California, and created so much distrust that the miners were unable to obtain credit for the stores, and consequently refused to embark in any speculative enterprise, and as quartz mining. Those employees of the company who were indebted, and who were the managers of the mill, and no means of satisfying the claims of the creditors, and the trustee and manager, therefore, consented to a judgment in their favour, with the condition that it should not be enforced for six months, at the expiration of which time, Oct. next, the mill and machinery will be sold, with, however, a further right of redemption within six months. The amount for which judgment was given was 2000, bearing interest at 2 per cent. per month, and unless this sum, at least, is sent out of the company the property will be sacrificed.

The reply of the trustees and Mr. Atwood to the enquiries of the directors will be laid upon the table, and the incomplete and unsatisfactory character of that reply is but too evident. Mr. Atwood having by very partially complied with their request. It will be observed that it is not expected the sale of the mill will realise more than 2000, the amount of the judgment debts; and, therefore, unless this amount is raised by the shareholders the company will be virtually wound-up.

The present meeting is not competent to take any steps for dissolving the company, but, should this course be determined on, a special meeting will be necessary.

The CHAIRMAN considered that the correspondence proved that they had a valuable property, but he could not deny that there was immense difficulty in managing it; the distance being 10,000 miles, almost entirely prevented their having any control, and money which they sent out to tend to miners was employed in mining; indeed, never funds were forwarded, they were invariably applied to purposes of their own views and wishes of the board. His object in the meeting was to ascertain the opinion of the shareholders, as to the course to pursue. Mr. Atwood was a man of great worth for his place. That he was an excellent engineer there could be no doubt, and he was thoroughly honest, but in all financial affairs he was utterly lost.

A SHAREHOLDER wished to know why they did not make a change? If it were found that he was incompetent, the best way would be to discharge him.

The CHAIRMAN reminded them that they could not discharge him without paying 2000, due to him and others, and that they had not the funds to do so. In order that the work might go on, their agents had confessed judgment for debts to the extent of 2000, per month, interest at the rate of 2 per cent. per month, or 24 per cent. per annum.

In answer to a question from a shareholder, the SECRETARY explained that the actual amount owing by the company was 13955, and that it was the opinion of Judge Walsh that 3500, would get them out of their difficulties, and provide them a fund to go with that and that the value of the property, even supposing it to be sold by the directors, would be 2000, in addition to which they had 2000, in England, so that they were quite solvent.

A SHAREHOLDER enquired the number of shares which had been issued, and whether small call would not meet the difficulty?

The CHAIRMAN said that 43,216 shares were issued, but that those present must satisfy themselves that the directors were few others would assist them. The only plan would be to know of raising funds would be to issue preference shares, bearing a rate of interest; but he found that there would be some difficulty in doing so. It

The directors were placed under some responsibility, and if the raising the loan was thoroughly legal, it was through good policy. (Heard.)

The CHAIRMAN said all Mr. Bland's calculations had proved correct: 29s. per ton the cost of reducing, including every expense, and as they got 32s. it left a profit of 3s. He believed Mr. Bland to be a very able and hard-working man.

Mr. RICHARDSON said the Ballarat assense account was formerly 4600, and now inserted as an asset at 2800. He wished to know how the difference arose?

The CHAIRMAN said they were anxious to give all the information in their power, the present occasion was not the one to go into the accounts, the object of the meeting being to confirm the resolution passed at the last general meeting,—that in future the minimum number of directors be reduced from eight to five,—and he would now move that it be confirmed.

Mr. RICHARDSON did not think it expedient to pass the resolution, the real object to increase the power of the Chairman. As one of the directors resided in Melbourne, four only would be left here, and should they be divided upon any question the Chairman would have the casting vote, and over-rule them. He concluded by moving the following amendment:—"That the shareholders of this company, taking into consideration the fact that one of the five directors remaining is resident at Melbourne, and the London board will, therefore, henceforth consist of four members only, and also that whenever an equal difference of opinion shall exist amongst those members, the casting vote of the Chairman will be decisive upon the subject, and that he shall secure an undue preponderance upon all important questions, are decidedly of opinion that under existing circumstances it is not advisable that the minimum number of directors should be less than six."

Mr. CLUFF, in seconding the amendment, considered they ought to increase the number instead of reducing them.

The CHAIRMAN said it did not follow that they would be five, it was only making the minimum number five.

After a discussion, the amendment was put to the meeting, and, by a show of hands, carried. A ballot was then demanded, when, at the close, it was found that, of the 43,216 shares (the number required by the charter) were not present, either in person or by proxy, to vote, the proceedings, in reference to the alteration in the minimum number of directors, stands over until the next annual meeting.

### ROYAL SANTIAGO MINING COMPANY.

The adjourned special general meeting was held at the offices of the company, the street-buildings, on Thursday.—Mr. JOHN TAYLOR, Jun., in the chair.

Mr. DOCKEN (the secretary) read the notice convening the meeting, and the report from which the following is condensed. The particulars of the accident again, we have already appeared in the *Mining Journal*.

The engagement of Capt. Simmons, who held the post of this company's principal agent, expired on April 10 last, and he returned immediately thereafter to Cornwall; it appears from the letters which have come to hand, that from time to time the women had pointed out to him the dangerous state of the shaft as requiring repair, and the following extract from Mr. Morris's letter of May 1, it appears that the earliest action of the agents had been given to this work after Capt. Simmons's departure. The letter was dated April 24, and still, after nearly two months, the shaft was not really repaired, but left in a very dangerous state.

The ship, *Lady Prudhoe*, sailed in May for St. Jago de Cuba, with coal and other supplies for the working of the mines, and will be dispatched this month for Swansea, as the directors believe, a full cargo of ores and precipitate, amounting to 500 tons, letters from the mines lately received had held out the very encouraging prospect of rying on the operations profitably. The lode which was discovered in sinking New shaft to the 10 below the old, and from which the ore has been obtained during the last 12 months, is less disordered by heat than those of the other part of the mine, ore is of richer quality, easily broken, and made marketable at low cost. It is quite possible that the directors can, at present, see all the effects which may result from the accident alluded to above may occasion, and not the least of their difficulties arising from the retirement of Mr. Morris, the general superintendent of the company's affairs, a moment, and from his having given notice to all the artisans who are at the mine, carry on the concern, an immediate outlay of capital is necessary; not a moment can be lost; and if it be resolved that works shall be commenced, the directors will have made a call of 10, per share.

The CHAIRMAN, in answer to a question, said 7000, (10, per share) would take 32 fathoms below the shaft.

Mr. FALGOUT: Will the 7000, enable you to prosecute the works with energy?

The CHAIRMAN replied it would enable them to go on for some time, but he was sorry to say positively that they would not require more money. He expected would sink the shaft to the same level as in Thompson's in 15 to 18 months. The thought the drainage would be partially effected by male power. They had no intelligence except the unlucky letter from Mr. Morris, who, considering they would go on, had accepted a situation as manager of the gas-works at Santiago de Cuba.

Mr. STAPLES wished to know, if they would-up, what they would get per share?

The CHAIRMAN considered they would only have the value of the mines and machinery. They were perfectly solvent, but he could not say whether there would any balance over independent of the mines and machinery. There might be 100,000, or 3000, if they would-up, he did not think the Colre Company would buy, but the San Jose might.

Mr. PALGRAVE considered they ought to wind-up the old company and start anew.

Mr. STAPLES said his feeling was in favour of winding-up. It did not appear to him the company, and if they would-up and disposed of the property he thought they would come out very well.

The CHAIRMAN would prefer its being sold to a new company, to give an opportunity to all parties who thought proper to come in.

Mr. JUDG (a director) said he was a large shareholder, and would pay 10, or 20, but would not go into a new company.

Mr. FAWCETT was of opinion that the most desirable arrangement was to go on with the old concern. If they put it up to sale at the present time they would have very little to divide. If the present company were broken up they would have great difficulty forming a new one. He would recommend the directors to make a call of 10, per share, and request the proprietors to pay it as speedily as possible.

Mr. JOHN PHILLIPS said the call must be made in accordance with the Deed of Settlement, which allowed 60 days for payment, but if discount at the rate of 2½ per cent. was allowed for immediate payment, the directors might obtain the necessary funds at once.

A resolution was then proposed, seconded, and carried, that the directors be requested to make a call of 10, per share, and that 2½ per cent. discount be allowed on all sums paid on or before July 13.

The CHAIRMAN intimated that the course proposed would ascertain the feeling of the desirous of going on, as they must have funds immediately.—The report and accounts were unanimously adopted.

The following postscript was added to the report:—The directors request particular attention to the following announcement:—In order to obtain the necessary funds for the carrying on of the concern, they will adopt the recommendation of the shareholders to allow a discount of 2½ per cent. on all payments of the call made on or before July 13 instant. A cordial vote of thanks to the Chairman terminated the proceedings.



**COAL vs. WOOD FOR RAILWAY ENGINES.**—The directors of the New Jersey Railroad and Transportation Company, in their annual report submitted to a meeting, held at Jersey city, on June 4, say that the experiments made by two first class engines have been continued, showing great economy in the use of (Cumberland) wood. The average cost of running a coal engine is \$3.33 per hour, and of a wood engine \$2.33, or one third less than wood. The statement of some of the committee is that the use of wood will save the company \$100,000 annually, as it will still further saving in coal. The conclusion is, therefore, that wherever the cost of wood is not less than \$3 to \$4 per cord, coal will be found most economical."—*United States Railroad and Mining Register*.



## Mining Correspondence.

## BRITISH MINES.

**ABBEY CONSOLS.**—J. Trowin, June 28: The mine in the engine-shaft is producing saving work for lead. I cannot speak of any change having taken place in the 10, east of the engine-shaft, since last reported; no change to notice in the rise in the back of this level during the past week, worth about 6 cwt. of lead per fm.; the slopes in the back of this level are producing 6 cwt. of lead per fm. The mine in the 10, west of the engine-shaft, is much the same as for some time past. The mine in the winze sinking below the adit, west of the engine-shaft, is worth 4 cwt. of lead per fm., and is presenting an improving appearance. The mine in the 10, west of the eastern shaft, is producing occasional stones of lead ore; the slopes in the back of this level are worth 8 cwt. of lead per fm. The mine in the winze in bottom of the adit, west of the eastern shaft, is worth 4 cwt. of lead per fm.; the slopes in the back of the adit, west of the engine-shaft, are worth 6 cwt. of lead per fm.

**ALFRED CONSOLS.**—T. Trelease, S. Uren, June 30: Field's engine-shaft is now sunk 5 fms. below the 160 fm. level; the mine is 3½ ft. wide, still unproductive; no lead yet discovered in the 160 cross-cut north. The north level in the 140, east of flookan, is 3 in. wide, spotted with ore, but not to value; the north level in the 140, east of flookan, is worth 10½ per fm. We have not yet intersected the main lode in the cross-cut north in this level. The main lode at Davey's engine-shaft, sinking below the 120, is 4 ft. wide, spotted with ore; the lode in the 120, driving east of said shaft, is 3 ft. wide, worth 3½ per fm. The lode in the 110, winze, sinking below the 110, is worth 30½ per fm. The lode in the 110, driving east of the 110, is 1½ ft. wide, the south branch in this level, east of the above shaft, is worth 10½ per fm. No change to notice in the 70 fm. level, east of the flookan, since our last report.

**ANGARRACK CONSOLS.**—J. Barratt, June 29: During the past week Cox's engine-shaftmen have been engaged cutting pit in the 12, and by Saturday next I anticipate they will have finished it; they will then commence the cross-cut north towards Eaton's lode. A portion of the adit operations will be ceased on Saturday next, being survey-day. The engine continues to work very steadily.

**BALLYMONEEN.**—W. Barkla, June 26: The men are working with spirit in sinking below the 15, but the ground is very hard, which makes our progress slow; there is but very little change for sulphur for the last few days. We have set to-day the adit level to drive east by four men, and we shall also commence to drive the adit level west in a few days after we secure some lead ground that is in the level, which we will commence on Monday; sunk since last report 3 ft. 6 in.—total, 6 fms. 2 ft.

**BALLYVIRGIN.**—D. Macdonald, R. Pellow, June 24: The 18 fm. level continues without change; the present end shows veins of spar carrying copper; the line rock is also spotted with copper; the lode in the north end is 3 ft. wide, and is worth 3 tons of copper mounds per fathom. No. 1 slope is worth 1 ton of copper, 10 cwt. of lead, and 10 tons of mounds per fathom. No. 3 slope is worth 1½ ton of lead, 1 ton of copper, and 15 tons of mounds per fathom. The lode in the south drift is worth 1 ton of copper, 10 cwt. of lead, and 8 tons of mounds per fathom. The lode in the underhand slope is worth 2 tons of copper and 5 tons of mounds per fathom. We have put 5 tons of copper and 20 tons of mounds to pile since last report, and have prepared 5 tons of lead for the crusher. A large quantity of mounds has been spilled and made ready for market.

**RAMPFYLDE.**—C. Hand, June 28: There is but little change since the date of my last report. The bottom of the 40 west, under winze F, has been looking better than expected, but a head, or small branch, coming in has cut out the rib of ore, and disordered the lode a little; there is but little doubt that it will improve again shortly. A stone of copper ore, about 12 in. x 9 in. x 7 in., was taken from this bottom a few days ago, weighing 1 cwt. 20 lbs. The water is increasing, and three labourers are put on to draw. The 40 end west (or R), on Poltimore lode, is worth about 5½ per fm., but the lode is now getting more settled, and improving. R. east at No. 3 cross-cut, is opening wider, with a good appearance, though with little ore, except in the back. Winze I, east and west, is good; this winze is now open from the 30 to the 40. The slope E, in back of the 30, is not so good as a few days ago. The supply of water is becoming again inadequate to our surface operations.

**RAIR.**—W. Mitchell, June 33: The ground continues good in the cross-cut west, and from all appearance we are nearing the level. We have driven east 1 fathom during the week. I would advise more men to be put on in the old workings, there being good lead standing in several places. The men are clearing the stuff from the back of the new lode as fast as the place will admit them to do so. Our prospects are very encouraging.

**RASSET CONSOLS.**—W. Harris, June 30: On Saturday last we set the new shaft to sink from 3 fms. below the surface, by six men and three boys, 10 fms. stent, at 60s. per fathom; we also set a new rise in back of the 30 (shallow adit) to meet the new shaft, by six men and three boys, 10 fms. stent, at 85s. per fathom. We calculate to have the shaft in two months; when done, it will be a great advantage in working the mine. With the exception of the slopes and deep adit end we have suspended the driving, &c., of other bargains, that the men may have good air to rise with all speed; the slopes are worth 14½ per fathom for copper ore. The 30 end, east of lead course, has a very kindly appearance. The deep adit end driving west is very wet; lode 1 ft. 6 in. wide, producing stones of copper ore and blende. This end is getting near where we expect to get the shoot of ore we drove through in the level above. We shall sample about 45 tons of ore in a fortnight from this.

**REDFORD CONSOLS.**—J. Mitchell, July 2: The shallow adit is being pushed on with full force, and is now within about 5 ft. of the east end of the shaft, according to the dialing. After this ground is spent we shall commence rising against the shaft with as many hands as is found necessary to expedite this work. This being the most essential work to be carried on, we have commenced raising a horse-whim, &c., so as to sink the shaft without the aid of the engine, as the water is only a few barrels a cwt. in fact, nothing worth mentioning. The lode in the middle adit level is about 1½ ft. wide, containing spots of copper ore.

**REDFORD UNITED.**—J. Phillips, June 29: We are driving by the side of the lode in the 145 east and west. The lode in the 130 east is 3 ft. wide, worth 3 tons of ore per fm. Paul's slopes, in bottom of the 115 east, are worth 4 tons; Higgins's, 3 tons; and Jackson's, 7 tons per fm. We are sinking by the side of the lode at the new shaft. No lead taken down in the 115 west. The lode in the 103 west is 2 ft. wide, and worth from 2 to 3 tons per fm. Warren's slopes, in bottom of this level, will yield 4 tons of ore per fm. The lode in the 47 east is improved, being now 2 feet wide, producing good stones of ore. The lode in the 35 east is 2 ft. wide, saving work. We weighed off on Friday, 29th inst., 206 tons 19 cwt. 3 qrs., and sampled, computed, 201 tons.

**RODCOLL.**—F. Evans, June 28: The pitch did not look quite so well on Saturday. The shaft is down about 4 fms.; the ground about the lode is everything a miner would like to see; we shall put the pumps in the shaft next week, perhaps the latter part of this; I want the mason work done first at the top-pit. I should say we are not taking down the lode at the shaft, as I find we can sink faster and cheaper without doing so.

**BOILING WELL.**—J. Delbridge, June 26: In the 60, west of engine-shaft, the lode is 1½ ft. wide, yielding blende and a little lead, not to value. In the 60, east of King's, the lode is 3 feet wide, yielding stones of ore and blende, and the lode has a kindly appearance. In the 50, east of King's, the lode is 1½ ft. wide, yielding lead, blende, and stones of copper ore. In the 40 cross-cut, south of Austin's, the ground is favourable, and more wet than before, so as to drive to the level. In the 40, west of the engine-shaft, the lode is 4 ft. wide, yielding blende, and the lode is 1½ ft. wide, yielding some good copper and lead ore. At Syrett's we are cutting a pit in the 30; we shall soon commence driving the 30. In the present week we have been cutting ground in the 40, at the engine-shaft, to put in a sole to drain the bottom lift below the 60. At Austin's shaft we are getting on slow, having to blast the ground, and then timber it afterwards. We have the shaft complete as deep as the 20, which is 23 fms. below the surface. Our tribute department is without change since setting day.

**BRONFLOYD.**—M. Barry, June 30: The slopes on the south lode, in back of the deep adit, both east and west of James's rise, will yield full ½ ton of ore per fathom; the same lode in the 17, west of cross-cut, contains a slight mixture of ore, but not rich at present; this level, driving east, is in a most promising lode, yielding ½ ton of ore per fathom; while the slopes in the back will, on an average, produce 1 ton of ore per fm. On the north lode the 17 west will yield 5 or 7 cwt. of ore per fathom; the slopes in back of the same ½ ton of ore per fm. The new adit is proceeding favourably, as well as are our dressing operations.

**BRYTHALL.**—J. Bouch, July 1: The cross-cut south in the 10 has been driven into the flookan, on south part of the lode, 4½ ft., which is poor; therefore, the driving of the level east on the north part was resumed on Tuesday. The bearing part of the lode, commencing from the footwall, is 12 ft. wide, as stated in my last advice. The winze sinking under the 10, on the north part of the lode, is now 2½ fms. deep; it is still dry, and the lode quite as good for ore as any previous report. The cross-cut from the perpendicular shaft in the 20 is driven north towards the lode 7½ feet; everything is now in complete order, consequently we shall make greater progress in future.

**BULLER AND BASSETT UNITED.**—G. Reynolds, June 29: On Saturday last I set the engine-shaft, to sink, by six men and three boys, at 26s. per fathom—it is now down 7 fms. 2 ft. below the 30; the lode in the shaft is from 3 to 4 ft. wide, and much the same as when last reported. To drive west on the lode, in the 50, by four men, at 6½ per fathom. The lode at this point is looking much better since it passed through the cross-course, and there is every appearance of a further improvement, the men having commenced their work with energy.

**BULLER AND BERTHA.**—John Hamby, June 29: The lode at the bottom of the engine-shaft continues to improve; it is now about 5 ft. wide, composed of gossan, spar, mineral clay, mounds, and black copper ore, and is soft for breaking; you will find no doubt soon have a good lode, and a brace from the bottom of the shaft to-day flookan, soft spar, mounds, and black ore, as the looking stuff as can be seen.

**BWLCH CONSOLS.**—R. Northey, June 29: The lode in the 70 fathom level is improved; it is worth for lead 10 cwt. per fm. The lode in the 60 west is 2 ft. wide, with spots of lead. The slope in the back of the 40 is not looking quite so well; I have removed some of the men to a slope in the back of the 70. The slope in the bottom of the 40 is worth 12 cwt. per fm. The lode in the winze in the 50 is poor; no lead to value. The lode in the 40, in the old mine, is 3 feet wide, and mixed with ore throughout the whole breadth. The slope in the back of the same level is without alteration since last report. The men have been engaged in putting in stall the past week.

**BWLCHSTELLAN.**—R. Northey, June 30: The men are sinking by the side of the lode, which will be done a great deal faster and cheaper, as the lode is very hard and wet. The jack is very strong in cutting through the lode in the pit; if we had a little crusher, and could get 4½ or 10s. per ton, I think it would about pay its way, and in doing that we should be opening the mine, and the chance of discovering large deposits of lead is good; however, before going to more cost, it would be wise to have an interview, and thoroughly go into the matter.

**CAMBORNE CONSOLS.**—Wm. Roberts, June 29: In the 50 east, on the counter, the lode is about 6 in. wide, producing stones of ore. In the winze sinking under the 10 the lode continues 1 ft. wide, with stones of ore. Wheat Goss shaft is cleared 15 fms. below the 50. Other parts are without alteration.

**CARADON CONSOLS.**—W. Rich, June 29: We hope to clear the 38, and resume the driving of the cross-cut north to-day or to-morrow on the day following.

**CARMARTHEN UNITED.**—T. Williams, R. Sanfers, July 1: On Saturday last we set the following bargains:—Harrison's engine-shaft to sink below the 12, by six men, at 30 s. per fm. The 12 to drive north, by four men, at 34 s. per fm.; the cross-cut to drive west, by four men, at 41 s. per fm. The shaftmen are at present engaged in cutting eastern-plat, bearer-holes, fixing lift rods, &c. In the cross-cut we have not met with any more strings of lead, and the ground is very close and hard. The lode in the 12 north is just as last reported.

**CARVANSNAIL.**—Wm. Roberts, June 29: In the 180 west the lode is 2½ ft. wide, producing crystallised iron, mounds, and stones of ore. The rise in back of the 118 is progressing favourably; lode 2 feet wide, chiefly mounds, with occasional stones of ore. The rise in the back of the 86 is nearly holed to the winze sinking under the 76, when these are communicated it will open tribute ground.

**CARYATH UNITED.**—R. Hancock, June 28: We have driven the 50, west of the engine-shaft, 8 or 9 fms. on the course of the lode; the lode is large and poor, but is not driven far enough west to get under the run of tin ground gone down below the level above; I think 6 or 7 fms. further will get in this tin ground. The lode in the 40 is poor, but producing some tin; the slopes in the back of this level are also poor at present. The ground in the north cross-cut is good for driving and kindly for mineral; the water there also is much stronger, and I think we are not far from the lode in this level; we are driving this end by six men with all possible speed to get at this object; there is a good lode here, and should it hold down, as we believe it will, a considerable quantity of tin will be produced. You, of lead, the lode is the important object in view—to get under the tin ground in the 40, and to cut the north lode; when this is done it will throw a great light on the mine. The water is drained below the 40, and we have put men to sink a winze on the course of the lode, in the run of tin ground gone down from the 40 to the 50, to communicate these levels to prove the lode, and to ventilate the ground for working.

**CHOLLACOTT CONSOLS.**—Jas. Carpenter, July 1: We are sinking the engine-shaft very satisfactorily, and are preparing the horse-whim to draw up the stuff. The engine is a very good one in all its parts—very strong, and of good workmanship. It works remarkably well, and I have reason to believe it will be as inexpensive in the consumption of coals as most engines are on the same principle—a pumping-engine, 8 ft. stroke, equal beam.

**COLLACOMBE.**—S. Mitchell, June 29: During the last month the 84 fm. level, west of Morris's engine-shaft, has been driven 5 fms. 3 ft. 3 in., and the lode is improved, being composed of quartz, prisms, and mica, and is worth 10 cwt. of lead per fm. The 72, west of the western shaft, has been driven 5 fms. 0 ft. 3 in., and the lode is composed of quartz, conical capel, prisms, and from 1 ton to 1½ ton of rich copper ore per fathom. The driving of this 72 fm. level is discontinued at present to admit of a rise being put up to the 62, for the purpose of ventilation, and laying open tribute ground. The rise in the back of the 40, west of the western shaft, has been put up 2 fms. 5 ft., and the lode is of a highly promising character, being composed of capel, quartz, blende, and 1 ton of good ore per fm. About 200 tons of good quality copper ore were sampled on Friday last. The following bargains were set on Saturday:—The 84 to drive west of Morris's engine-shaft, at 3½ per fm. A rise to put up in the back of the 72 west, at 2½ s. per fm. The 62 to drive west of the western shaft, at 2½ s. per fm. The 50 cross-cut to drive south of Morris's shaft, at 2½ s. per fm. A rise to be put up in the back of the 40, west of the western shaft, at 3½ s. per fm. A winze to sink in the bottom of the 26, west of the western shaft, at 3½ s. per fm. All the kibble filling and landing in the mine for two months at 20½ per month. All the tramping in the mine for two months, at 10½ per month.

**COLLEGE.**—A. Brathwaite, T. Murray, June 26: Since sending you our quarterly report we have sunk an additional 2 fms., and we have much pleasure in reporting that the lead now extends southward across the shaft 4 ft., estimated to produce about 10 cwt. to the fathom. The sloping in the back of the level, which was let at 3½ per ton, has produced about 1 ton 15 cwt. of lead per fathom; the present tin being 30 cwt. to produce five; we have let it to five men, at 6½ per ton, to secure the ground and make the end of the shaft in good order. Not having had any rain lately our supply of water for working our wheel has failed, we have, therefore, commenced working our wheel.

**CROWNDALE.**—J. Richards, July 1: In the shallow adit level cross-cut north the ground is easy for progress, and congenial for mineral. In the winze sinking below the 30 the lode is not at present so productive; it is, however, exceedingly promising, worth 5 tons of ore per fm. The lode in the pit in the bottom of the 30 is still a good course of ore, worth 8 tons per fathom. The 40 is being cleared with all dispatch, and will be completed in about another week; the lode, so far as seen, is composed of capel, mounds, and ore, very promising.

**CWM ERFIN.**—June 29: The lode in the 69, going east of the drawing-shaft, is 2½ ft. wide, composed of kiles, quartz, and spots of lead ore, but not to value. The lode in the 57, going east of drawing-shaft, is 4 ft. wide, yielding 12 cwt. of lead ore per fm.; the lode in the slopes in the back of this level, west of the lode, is 5 ft. wide, yielding on an average 8 cwt. of lead ore per fm. The lode in the 45, going east of the cross-cut, is 4½ ft. wide, carrying a small branch of lead ore on each wall; I look forward for an improvement here before next report: the slopes in the back of this level, over the cross-cut, continue to yield 16 cwt. to 1 ton of lead ore per fm.; the slopes in the back of the same, and 17 fms. east of the cross-cut, are taken away to the bottom of the 32; these men are now sinking a winze below the 45, about 32 fms. east of the cross-cut; the lode is 4 ft. wide, yielding 12 cwt. of ore per fm. The lode in the 32, going east of cross-cut, is 5½ ft. wide, composed of kiles, carbonate of lime, and carrying a regular leader of blende, 4 ft. wide, in the 32, the lode here is present is disordered by a cross-course crossing the lode on an average 15 cwt. to 1 ton of lead ore per fm.; the slopes in the back of the same, and 7 fms. west of the cross-cut, have rather fallen off in length as we approach upwards; the part we are carrying yields 15 cwt. of lead ore per fm. The lode in the 20, going west of the cross-cut, is 2 feet wide, unproductive; I have suspended the driving of this level for the present, as the last-mentioned slope, which is being worked up from the 32, will throw sufficient light upon this part of the mine; the lode in the 20, going east of the cross-cut, has a very promising appearance, being about 3 feet wide, yielding 1 ton of lead ore per fm. A rise and slope have been started in the back of this level, over the cross-cut, with the lode on an average 4 ft. wide, and yielding about 15 cwt. of lead ore per fm. The cross-cut in the 10 is so placed as to come in over the said rise, which is progressing agreeable to expectation.

**CWM SEBON.**—J. Boudy, June 28: Saturday last being our pay and settling-day, the following bargains were let:—The 70 end to drive west of engine-shaft by six men, at 50 s. per fm.; the lode in this end is 3½ ft. wide, worth for lead 6 cwt. per fm.; these men have been engaged during the past week in casing and dividing the engine-shaft, and fixing roadway below the 60, to bring down the winze-kibble to the 70; this will be completed in a few days. The 70 end to drive east by four men at 7½ s. per fm.; the lode is 12 ft. wide, poor at present. A winze to sink below the 50, west of engine-shaft, by four men, at 7½ s. per fm.; the lode is 3 ft. wide, worth for lead 6 cwt. per fm., and looking promising for a further improvement. The 60 end to drive east of engine-shaft, by four men, at 50 s. per fm.; this shaft we have present is disordered by a cross-course crossing the end; about 9 ft. behind the end there are two branches going off to the north, one 8 in. and the other 4 in. wide, composed of soft spar and lead ore; we intend to open on the course of these branches shortly, to ascertain their value. No. 1 slope in back of 60, east of engine-shaft, by four men, at 65s. per fm.; the lode in this slope is worth for lead 12 cwt. per fm. No. 2 slope, in back of ditto, by two men, at 65s. per fm.; no lode has been taken down during the past month, but intend to take it down shortly. The 30 cross-cut north, east of engine-shaft, by two men, at 100s. per fm.; nothing of importance has been taken down in this part of the mine as yet for some time past. Our machinery continues to work well. The dressing has been pushed on with all speed. We have sampled to-day 20 tons of good quality ore.

**DALE.**—R. Niness, July 1: The lode in the end going south in the bottom of the winze sink below the 13 is yielding well. The 20 east, or Johnson's lode, is looking a little better; the slopes in the back of this level are not quite so good as they have been, but in the rise the lode is looking well, and turning out some good ore. The ground in the 26, going north, is rather harder for driving, but as there is little water now oozing from the rock I think it indicates we are getting near a change. The sinking of the winze below the 37 still continues to progress favourably, and upon the whole, we are getting on very well.

**DEVON BURRA BURRA.**—J. Lord, July 1: A gradual improvement has taken place in White's shaft, in sinking under the 17, since last report. We find, in sinking, two branches carrying rich grey ore. The ground about these branches is composed of clay-day, lead floukan. This shaft we set last Monday to six men, 4 fms. stent, to sink lift and keep shaft in repair, at 6½ s. per fathom. The 40, at engine-shaft, driving through the cross-course, set to eight men, 5 fms. stent, to do all necessary work in the shaft, at 8½ s. per fathom. This end is driven 3 fms. in the cross-course; and the same cross-course is cut through at White's shaft, where I find it 7 fms. wide. Our engine and all connected is in good order.

**DRAKE WALLS.**—T. Gregory, June 26: The ground is not so good in the cross-cut north, although the water is strong ahead, and we hope for a change in the ground for the better. We are progressing favourably with the sinking of Betteley's shaft, the branches in which are producing some good work. We hope to communicate the 90, east of Betteley's, with the 92, west of Matthews's, in a fortnight from the present time. In the 92, east of Matthews's, the ground is rather improved, but the branches are poor. The 80 east of Matthews's, in this shaft we set last Monday to six men, 4 fms. stent, to sink lift and keep shaft in repair, at 6½ s. per fathom. We have had a change in the 80 slopes, principally composed of mounds and wolfram; we have had a change to notice in the 80 slopes. In the 70 east the branches are gradually improving, and we believe we are approaching the same run of tin ground as we have in the 60 fm. level. The branches in the 60 east, and the slopes in the back of the same, are producing good work. The slopes in the back of the 40 are producing saving work.

**EAST ALFRED CONSOLS.**—H. Skewes, June 26: The lode in the 15, in the western end, is much the same as for some time past, producing good stones of copper ore, but not enough to value; the lode in the eastern end in ditto produces stones of jack. I think the south cross-cut is getting near the lode in the 15, as there is more water issuing from the lode and the ground altered.

**H. Skewes, June 30:** There is no change to notice in this mine since my last report. The water is flowing more freely from the 15 cross-cut south, which shows we are getting near the lode.

**EAST GUNN BREA.**—T. Glanville, June 30: There is nothing new to report.

**EAST CUNNIS LAKE AND SOUTH BEDFORD CONSOLS.**—J. Phillips, June 29: We have not yet cut through the cross-course in the 75, west of Red Whim shaft; this delay has arisen from its increased size at this point. In the 62 cross-cut south the ground is favourable for driving. The lode in the 62 cross-cut is 4 feet wide, composed of gossan and quartz, and producing large stones of good ore, a very kindly lode. The lode in the 35 east is 2 ft. wide, composed of floor-spar, prisms, and black ore, worth 1 ton of ore per fm. We have not taken down the lode in the 20 east. No alteration in any other part of the mine.

**EAST PROVIDENCE.**—Wm. Hollo, June 29: The engineers are putting in the engine, lob, and cylinder; the bed stones are fixed, and to-morrow we shall get the boiler in, all being well. Our pitwork and rods are nearly all fixed at Poole's shaft. We are now putting in the flat-roads at the surface, for an advantage in fixing our pitwork at Harvey's shaft, and to save time when the engine is put to work; we have put four men to cut it down as deep as we can possibly go for the water.

**EAST ROSEWARNE.**—J. James, June 26: At the engine-shaft, the lode is much as last reported, yielding stones of copper, lead, and blende ore, but the tin branch referred to in my last is small, and not likely to continue productive for tin. In the 22 east, on the north lode, the lode is about 1 ft. wide, yielding a little copper ore, and likely to improve. The rise in the back of this end is still worth 1½ ton of ore per fm. We have cut through the lode in the 22 cross-cut, south of Hanley's shaft; the lode has a well-defined part, about 8 in. wide, containing a little copper, lead, and blende ore, but not to value; the lode altogether is 1 ft. wide, and of a kindly appearance; we have commenced opening east and west on it to prove its value. In driving the adit cross-cut south of Wheal Brook we have met with four lodes, which promise to be productive in depth; we have been driving east on one of them in the past week, which is 1 ft. wide, containing fine gossan and mounds, with spots of copper ore. We have no particular change in any other department since last report.

**EAST TAMAR CONSOLS.**—G. E. Tremayne, June 29: The lode at the engine-shaft, sinking below the 40, remains much the same as last reported—3 ft. wide, yielding 10 cwt. of lead per fm.; the ground is very favourable, and no doubt good progress will be made. The lode in the 40 south is producing 8 cwt. of lead per fm.; in this level north the lode continues worth 5 cwt. of lead per fm.; the ground in this level, from the commencement, has been very rich in the 30 and 40 above, and consequently a favourable change may be fairly anticipated in the lode. There has been no lode taken down in the 20 since last report. We expect to sample, on Saturday next, a parcel of ore of superior quality to the last.

**EAST WHEAL RUSSELL.**—John Goldsworthy, June 29: I received yours of yesterday, with the enclosed to Capt. Charles Thomas, which I delivered to him this day. I am sorry that we could not get the water out of the winze for Capt. Thomas to see the lode in the bottom; I can assure you every effort has been made to get the water out of the winze, of which nine men only forked about 4 ft. since yesterday morning. Captain Charles Thomas saw the lode down as far as the water was in fork, which was about the

place where the first change took place in the lode. I am also glad to inform you that we have a change in the 88, where the lode at present is looking very kindly, and producing good stones of yellow copper ore. Homersham's shaft is sunk south of the lode. Nothing new in any other part of the mine.

**J. Goldsworthy, July 1:** I have nothing new to report since I wrote on June 29. The ground in the 88 fm. level is more favourable, and the lode is still producing occasional stones of ore.

**GABREG.**—John Trevelthan, June 30: The lode in the winze sinking under the 10 is 4 ft. wide, and without any change in the appearance of the ground, composed of lime, stone, and carbonate of lime, and producing about 8 cwt. of lead per fm. The lode at the south shaft continues of the same promising character since the commencement, and the commend the sinking of a new shaft, as the air is dead, and the old shaft very small and inconvenient. We could sink a shaft from surface and take the lode as deep as we are at present for 40½—8 fms., at 3½ per fm. We should then have good air, and our progress near doubled for the same time and expense, and in all probability the shaft would pay by sinking on the lode a good part of the outlay.

**GAWTON.**—J. Gill, June 30: In the 50 west the men have commenced to rise, and no lode has yet been taken down. In the 30 east the lode is about 1 ft. wide, containing mounds with a little copper ore, but not to value. In Harris's pit, in back of the 30, the lode is 4 ft. wide, worth 7½ per fm. In Kest's slope, below the 24, the lode is 2 ft. wide, worth 10½ per fm. We sampled on Friday last (computed) 72 tons of copper ore.

**GELLIRHEIRON.**—R. Northey, June 30: The lode in the 40 east is 2 feet wide, with spots of lead. The lode in the 30 east is 3½ ft. wide, and worth for lead 8 cwt. per fm. I have put the men that were driving west 62 slope in the back of the 30 east, which is worth 8 cwt. per fm. The lode in the 20 west, is 5 feet wide, with lead disseminated throughout the whole breadth; saving work for dressing. The lode in the slope in the back of the 20 is 3 feet wide, and worth 8 cwt. per fm. The lode in the slope in the back of the 8 is 9 feet wide, and worth 6 cwt. per fm.

**GREAT CARADON.**—J. T. Penrose, June 26: The shaft is sunk since last report 3 fms.; the lode is about 3 ft. wide, of a promising character. I have set to six men to sink the shaft at 7½ per fm.

**GREAT CARADON AND SLADE.**—S. Gregory, June 29: We have a good improvement in our adit level the last few days. We have a splendid looking lode, 4 ft. wide, with mounds, prisms, and some good stones of yellow copper ore; the lode is spotted all through with copper ore. I have never seen the lode look so well as it does now since we commenced to drive the end, and it is my opinion we shall have a bunch of ore in driving to lift. I have had several of the South and West Caradon men here to see the ore, we are hauling up. They agree with me in opinion that we shall have a good ore, or a better mine than either of them in driving. We are sinking Bisset's engine-shaft as fast as possible; we have had some trouble to get through that large branch or lode which came in the shaft last month; it is underlying mounds, and will fall into the lode we are driving on about 20 fathoms under the adit, which for certain will make a course of ore when the two lodes meet; then we shall be able to sink the shaft faster again, as we are through that large branch or lode that was in it.

**GREAT SIEBA CONSOLS.**—J. Spargo, July 1: We have commenced driving east and west by the side of the lode in the 29, at Kelly Hall, and in doing this we shall complete the pit; the ground in both ends is soft for driving. We shall cut through the lode in both ends in a week or ten days, at which points I have reason to believe we shall cut into some good ore. The pitches in the west part of the mine are without alteration.

**GREAT SOUTH TOLGUS.**—John Daw, June 30: The lode in Lyle's shaft, sinking below the 50, is 1½ ft. wide, composed of mounds, pebbles, and copper ore. In the 50, east of Lyle's shaft, the lode is 2 ft. wide, producing 18 cwt. of lead per fm. In the 50, west of the lode, the lode is 2½ ft. wide, producing 18 cwt. of lead per fm. In the winze sinking below this level the lode is 3 feet wide, producing 5 tons per fathom. In the 60 the lode is 1 ft. wide, unproductive. In the 50 the lode is 1½ ft. wide, producing 1 ton per fathom. In the 40 the lode is 1½ ft. wide, producing 2 tons per fathom. In the rise in the back of this level the lode is 2 ft. wide, producing 3 tons per fathom.

**GREAT WHEAL ALFRED.**—M. W. Mitchell, W. Arthur, June 26: At the Copper-house shaft the men have been engaged during the week in putting down skip road from the 180 to the 190, consequently nothing has been done in the bottom of the shaft since last report, when its value was 1000 s. per fathom for the whole length, 12 ft. The lode in the 190 east is worth 35½ per fm., and the lode in the 190 west is worth 20½ per fm. The lode in the 180 west is 2½ ft. wide, worth 8½ per fm. The lode in the 170 east, on the north part, is worth 8½ per fm. This lode is 5 fms. further east is worth 18½ per fm. The lode in the 170 west is large, but unproductive for copper. The lode in Robert's pitch, in bottom of the 160, is worth from 40½ to 50½ per fathom. No change in the 160 or 148 east west.

**M. W. Mitchell, June 29:** We have sold our two months' stuff to-day, which realised 223½ s. 4d. We calculate to get the skip-road complete to the 190 by Thursday morning. The men in the 190 east and west are driving by the side of the lode, but as soon as we are in a position to draw from this level we shall take it down, which from its appearance will turn out a great many tons of excellent ore. The 180 is looking much the same as reported on Saturday.

**GREAT WHEAL BADDERN.**—John Jenkin, June 29: The lode in the 61, east of north, is 20 in. wide, worth 1½ ton of lead ore per fm. In the slopes in the back of the 61, east and west of the winze, the lode is 18 in. wide, producing about 1½ ton per fm. In the driving and sloping below the 51 the lode is 12 ft. wide, turning out 1 ton per fm. The lode in the 51 fm. level, east of north, also in the end driving west of south below, much the same as when last reported. We intend sampling two parcels of lead ore to-morrow, Wednesday.

**GREAT WHEAL BUSY.**—J. Nancarrow, June 26: At the engine-shaft we are making fair progress in sinking; the lode produces good work for tin. The ground in the 100 east is hard for driving, but continues to improve for copper. In the 90 east the lode is 4 feet wide, producing good stones of copper. The 80 west produces stones of copper. In the 70 west the lode is large, but unproductive. The 60 west, with a promising appearance, with stones of ore. We are making good progress this week in the confining space, with stones of ore. We have sold to-day 10 tons 9 cwt. 3 lbs. of black tin, realising 573½ s. 9d. We have sold to-day 10 tons 9 cwt. 3 lbs. of black tin, realising 573½ s. 9d.

**GREAT**



the lode in this, the bottom, level is partaking of a star north near the 54, east of the engine-shaft, we have intersected the north part of the lode, by means of the cross-cut I have before advise you of, where the lode is better than 2 feet wide of peach, prian, and quartz; I cannot detect at present any mineral to value, but it is so masterly, therefore I think we ought to open on it to test its character and bearing.



the western end, same level, the lode is about 12 in. wide, of quartz, a little black, &c.; the ground is of an easy nature for exploring. We have set a winze to sink from the 54, upon the eastern end of the 66, to prove the ground between both levels, and also for ventilation; as soon as this is accomplished, I propose to extend a cross-cut north with all dispatch in the 66. The engine and pitwork are working very satisfactorily indeed, the water requiring something less than 47 strokes per minute.

**WHEAL HARRIETT.**—S. Williams, June 26: In the 100 cross-cut, driving south from the engine-shaft, we are progressing favourably towards the counterlode. The lode in the 90, west from cross-course, is small. The lode in the 90, east from cross-course, is 1½ ft. wide, producing stones of copper and tin ores. The lode in the 74 east is 4 feet wide, producing 7 tons of ore per fm., worth 8½ p. per ton, with every prospect of a continuation. The lode in the deep adit is 3 ft. wide, worth 10½ p. per fm. The lode in the eastern shaft is 1 foot wide, unproductive. I have suspended the tribute in the back of the 74, east adit west of winze, and set the ground to stoop on tutwork; the lode in these stoops will produce 2 tons of copper ore per fm.

**WHEAL MARY ANN.**—P. Clymo, H. Hodze, R. Knapp, July 1: Pollard's shaft is sunk 10 fms. under the 150. The lode in the 150 is intersected by the cross-cut, and so far as we are able to judge of its value, is worth about 15½ p. per fm. The lode in the 140 north is 2 ft. wide, and worth 8½ p. per fm.; in the same level south it is 2½ ft. wide, and worth 11½ p. per fm. In the 130 north it is 3 ft. wide, and worth 9½ p. per fm.; in the same level south it is 3 ft. wide, and worth 12½ p. per fm. In the 120 north it is 2½ ft. wide, and worth 10½ p. per fm.; in the same level south it is 2 ft. wide, and worth 11½ p. per fm. In the 110 north it is 2½ ft. wide, and worth 6½ p. per fm.; in the same level south it is 3 ft. wide, and worth 14½ p. per fm. Clymo's engine-shaft is sunk 7 fms. under the 95; the stoops and pitches are producing much as usual. We sold on June 18 two parcels of lead ore; No. 1, computed 90 tons, to T. Somers, Esq., at 27½ ls. 6d. per ton; No. 2, computed 95 tons, to Messrs. R. Mitchell, at 27½ ls. per ton.

**WHEAL RUSSELL.**—A. Barratt, July 1: The lode in the 74, east of Matthew's shaft, is at present worth ¾ of a ton of ore per fm. We have not met with the point of the lode in driving north on the cross-course east of Matthew's shaft; there is still water issuing from it. The pitches in the back of the 62 and 37 fm. levels are looking well, each worth from 2 to 3 tons of ore per fm.

**WHEAL TEHDY.**—D. Lankbury, June 30: In the different levels driving on the counter lode at present is unproductive. In driving the 60 north from the north lode there has been intersected a branch, or lode, about 8 in. wide, and underlie north 1½ ft. in a fathom, containing stones of ore, and letting out water.

**WHEAL TREBARVAH.**—B. Gundry, F. Hosking, June 28: In the 70, east of flat-roof shaft, the lode split up as now unmining, and looking very kindly, producing copper ore for 6 in. wide, the other part of the lode is composed of spar, muncie, lead, and blende. The 70, west of said shaft, is producing good stones of ore; we have every reason to expect an improvement in this end shortly, as there is a bunch of ore gone down in the 60, about 6 fms. further west. Sinking below the 60, east of flat-roof shaft, about 23 fms., the lode is 1 ft. wide of good copper ore, worth about 15½ p. per fm.

**WHEAL TRELAWNY.**—J. Prince, June 28: Monthly Report: Smith's engine-shaft is sunk 10 fms. 5 ft. below the 142 fm. level, the ground in which continues hard. The lode in the 142, north of the shaft, is 3½ ft. wide, and worth 20½ p. per fm. In the same level south it is 2 ft. wide, and worth about 9½ p. per fm. The lode in the 132 north is 3 ft. wide, and worth 14½ p. per fm. In the same level south it is 2 ft. wide, and worth 7½ p. per fm. In the 120, north of Chippendale's shaft, the lode is 2 ft. wide, and worth 9½ p. per fm. In the 120, south of the shaft, the lode is 2 ft. wide, and worth 9½ p. per fm. In the same level north the lode is unproductive, but, from the appearance of the slate contiguous to it, we anticipate that an improvement will soon take place. The lode in the 130 south is 3 ft. wide, and worth 12½ p. per fm. In the 107 north the lode is 2 ft. wide, and worth 7½ p. per fm. The stoops, on the whole, are not looking quite so well as they did last month. The wheel-pit for the stamps is completed, the wheel fixed, and the stamping apparatus will be put in order for working forthwith.

**WHEAL UNION.**—T. Glanville, June 30: In the 30, east of the engine-shaft, the south lode is worth for tin 20½ p. per fm. Our other operations are progressing satisfactorily.

**WHITFORD.**—John Trevelthan, June 30: The shaft is progressing with satisfaction, but our stratification has not yet altered; we are daily expecting to get into the limestone, but hitherto we have been in the shale.

### THE LIABILITY OF DIRECTORS.

The case of **SEYMOUR v. BAGSHAW** has at length been finally disposed of by the decision of the House of Lords, in confirmation of the judgments of the courts below, which in every trial (for it was taken from one court to another) were in favour of the plaintiff. This decision is a matter of immense importance to the public in connection with companies; and while it will give confidence in directors on the one hand, it will operate as a check, if not total barrier, to all proposed undertakings which are not legitimate. Mr. SEYMOUR is a stockbroker, and brought an action against Mr. BAGSHAW, as a director of the Lake Bathurst Gold Mining Company, for the recovery of money paid on shares, on the faith of the prospectus, which he contended, and has now proved, misrepresented the real state of the enterprise. The decision of the Peers shows that directors are responsible for the statements put forth to the public; and it is most satisfactory that the point should thus be finally settled. There is no doubt that great laxity, if not something worse, has frequently been permitted by those who undertake the introduction of such matters to the monied community, and the whole effect, in many cases, has been to procure the capital, or some portion of it, without regard to the means. The moral contract which ought at all times to exist between directors and shareholders has not been kept, and works have constantly been carried on with a mere title of the capital, although on the face of the prospectus it has been stated that a contrary course would be pursued. Besides, the assertions set forth in the public announcements in respect of the merits of the undertaking, or capabilities of the property, have often been little short of fabulous. All this manoeuvring will now be stopped, and most rightly, for nothing has tended more to create the almost universal feeling of distrust which now prevails as regards all projected enterprises, than the exposures of wilful, although, perhaps, not dishonestly meant, misrepresentations, which have been made by public boards.

The decision to which we have referred is only a proper following up of the responsibility, both criminal and pecuniary, attached to defaulting directors in other courts; and the double result will be, we trust, greater caution on the part of such gentlemen of position as may undertake the direction of the affairs of public companies, and a proportionate return of confidence on the part of the public, without which great enterprises cannot be undertaken or carried out.

**MINING SPECULATION IN FRANCE.**—A case of considerable commercial importance has been submitted to the Tribunal of Commerce. In 1855, a company, in shares, under the name of "Compagnie Minière et Industrielle du Maine," was got up, with a capital of 4,500,000 fr., for working marble quarries, mines, limekilns, &c. in the province of Maine; but after while it became bankrupt, and its agent, M. Ozou de Verrie, was condemned by the Tribunal of Commerce for fraud, in having distributed a dividend out of capital. The law of July 17, 1856, on companies en commandite, casts a greater responsibility on the councils of surveillance of companies than they previously incurred; and in virtue of that law a number of the shareholders of the Compagnie Minière demanded on Saturday that the Marquis de Nicolai, the Count de Terres, the Duke de Sars, and other gentlemen forming its council of surveillance, should be made to pay them 467,800 fr., as responsible for the irregularities which had been committed, and especially for having—1. Allowed an exaggerated value to be put on the mines, &c., sold to the company;—2. For having issued a greater number of shares than the capital authorised;—3. Distributed dividends without taking inventories;—4. Not having observed certain formalities set down in the law of July 17, 1856. But after hearing all that the shareholders had to say, the tribunal came to the conclusion that their complaint was not well founded, and dismissed the action.

**RHYDYDEFEL (SHEEP FORD) COLLIERY COMPANY (Glamorganshire).**—At the Court of Chancery, on June 26, a petition of appeal was presented by Mr. Sidney Pottinger Harris against Mr. Commissioner Goulbourn's decision, dismissing his petition for an order to wind-up this company under the provisions of the Joint-Stock Companies Act, 1856, sec. 68. The petitioner claimed to be a creditor of the company for 7451. odd for arrears of salary as former secretary, and on a balance of account. Down to Aug. 1856, the petitioner had acted as secretary of that company, and of one which preceded it, named the Swansea Coal and Iron Company, then of the Rhydydefel Colliery Company, and ultimately by its present name. In August he was summarily dismissed; on Feb. 20, 1858, he served the demand on the company for payment of a larger sum, and subsequently it was reduced to the present amount, he having been allowed several sums. On March 5, the company served him with notice that they were willing to pay any amount really due on the taking of accounts. Three weeks elapsed, and the demand was not satisfied, whereupon the petitioner presented a petition for winding-up under the above-named Act, which enacts "that a company shall be deemed unable to pay its debts whenever a creditor to an amount exceeding 500 l. has served a demand, which has not been satisfied or compounded for within three weeks to the satisfaction of the creditor." Upon the petition for winding-up, the learned Commissioner ordered the petitioner to bring an action, and the company to pay the amount (if any) recovered, and beyond that he dismissed the petition. The action was by consent ordered to be referred to one of the Masters of the Common Pleas. Their lordships considered the order of the Commissioner should be discharged, but beyond that the reply would be heard. They ultimately directed Mr. Harris's petition to stand over generally, with liberty to apply, and when the debt should be ascertained the parties might come to this Court—the costs to be reserved.

**TRIMSARAN FREEHOLD ESTATE (750 acres) ANTHRACITE IRON-WORKS AND COLLIERIES, CARMARTHENSHIRE.**—In our report last week of the biddings for this property at the Auction Mart, on June 23, we omitted to state that the sum at which it was bought in (31,900 l.) was exclusive of the "works plants," which by the conditions of sale was to be taken at a valuation.

**STOKE CLIMSLAND CONSOLS.**—The sale of the machinery and materials, advertised in another column (without date), will take place on July 21, at 12 o'clock.

**ESGAIL MWYN MINING COMPANY.**—Vice-Chancellor Sir W. Page Wood will proceed with settling the list of contributors on July 16.

**FATWORKS AND WHEAL VIRTUE.**—The list of contributors will be proceeded with on the same day.

**QUARTERLY REVIEW OF BRITISH MINING.**—We hope next week to give the usual interesting extracts from Mr. Murchison's useful periodical.

**LAKE SUPERIOR TO LIVERPOOL.**—(From a Correspondent.)—We have to announce an event of considerable importance to all interested in the copper produce of Lake Superior—a direct trade communication having been opened between Detroit and the Lakes and Liverpool. The inland navigation to Quebec was done in 15 days, and from Quebec to Liverpool in 20 days, thus effecting a certain passage in 35 days.

## The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, JULY 2, 1858.

COPPER.			BRASS.		
	£ s. d.			Per Ton.	
Copper wire . . . . .	134-1 2		Sheets . . . . .	10 1/2-11 1/2	
Drift tubes . . . . .	24-1 2 1/2		Wire . . . . .	10 1/2-11 1/2	
Sheathing & bolts . . .	0 0 0		Tubes . . . . .	12 1/2-13 1/2	
Bottoms . . . . .	0 0 0				
Old (Exchange) . . . .	0 10 1/2		FOREIGN STEEL.		
Best selected . . . . .	110 10 0		Swedish, in kegs (rolled)	19 0 0	
Tough cake . . . . .	107 10 0		Do, (hammered) . . . .	21 0 0	
Tile . . . . .	107 10 0		Do, in faggots . . . . .	18 0 0-23 0 0	
South American . . . .	100 0 0		English, (Spring) . . . .	18 0 0-23 0 0	
			QUICKSILVER . . . . .	0 11-1 2 0	
IRON.			SPELT.		
Bars, Welsh, in London .	7 5 0-7 10 0		Foreign . . . . .	24 0 0-24 10 0	
Do, to arrive . . . . .	6 15 0-7 0 0		To arrive . . . . .	24 0 0	
Nail rods . . . . .	7 15 0				
Do, Stafford, in London .	8 0 0-9 0 0		ZINC.		
Bars, ditto . . . . .	8 10 0-9 10 0		In sheets . . . . .	32 0 0	
Hoops, ditto . . . . .	9 10 0-9 15 0				
Sheets, single . . . . .	10 0 0-10 10 0		TIN.		
Pig, No. 1, in Wales . . .	3 15 0-4 15 0		English, blocks . . . . .	118 0 0	
Refined metal, ditto . . .	4 10 0-5 5 0		Do, Bars (in barrels) . .	119 0 0	
Bars, common, ditto . . .	6 0 0-6 10 0		Do, Refined . . . . .	121 0 0	
Ditto, railway, ditto . . .	5 15 0-6 5 0		Banca . . . . .	114 0 0-115 0 0	
Ditto, Swed. in London .	13 0 0-14 10 0		Straits . . . . .	112 0 0-113 0 0	
In stock to arrive . . .	2 13 0-2 15 0		TIN-PLATES.		
Do, No. 1, in Clyde . . .	2 19 0-3 2 6		IC Charcoal, 1st qua. p. bx.	1 13 0-1 15 0	
Ditto, in Tyne & Tees . .	2 17 0-3 2 6		IX Ditto 1st quality . . .	1 10 0-2 1 0	
Ditto, forge . . . . .	2 17 0-3 2 6		IC Ditto 2d quality . . .	1 11 0-1 12 0	
Staffordshire Forge Pig .	4 10 0-5 0 0		IX Ditto 2d quality . . .	1 17 0-1 18 0	
Welsh Forge Pig . . . .	3 0 0-3 5 0		IC Coke . . . . .	1 6 0-1 7 0	
			IX Ditto . . . . .	1 12 0-1 13 0	
LEAD.			Canada plates . . . . .	10 15 0-15 5 0	
Ditto sheet . . . . .	22 15 0		In London; 20s. less at the works.		
Ditto red lead . . . . .	24 0 0-24 5 0		Yellow Metal Sheathing .	p. lb. 10d. —	
Ditto white . . . . .	27 0 0-30 0 0		Wetterstedt's Pat. Met. .	p. cwt. 2 2 0	
Ditto patent shot . . . .	25 0 0-25 10 0		Indian Charcoal Pigs . .	— 7 10 0	
Spanish . . . . .	21 10 0		In London . . . . .		
American . . . . .	note.				

REMARKS.—Our markets differ very little from recent reports, buyers still keeping aloof from entering into transactions of any magnitude. There has been no material decline in prices, and sellers, for the most part, are indisposed to make any considerable concession.

**COPPER.**—A surprising change has taken place in this metal, whereas a comparatively short time since the demand, in the opinion of some, was sufficient to justify an advance. The enquiries are now becoming so slack that it is a question whether lower rates will not ensue; however, it is very certain that smelters are eager for orders, and do not exhibit so much indifference as they did some short time since.

**IRON.**—There is no manifest alteration in the position of this metal; makers still quote as before, although probably 2s. 6d. per ton might not stand in the way where a good contract is at issue, but the market generally may be said to have undergone little or no change—dull, but tolerably steady. The same remarks apply to Staffordshire descriptions. In Scotch pigs, after slight fluctuations of 1s. to 1s. 6d. per ton, the market has again taken a downward course, sellers quoting at the close of 'Change 52s. mixed numbers, cash, g.m.b. f.o.b. in the Clyde.

**LEAD.**—The demand is yet extremely limited, and prices assume rather a downward tendency. Sheet, 22½ ls.; red, 24½; shot, 25½.

**SPELT.**—Besides a few transactions reported, principally for shipment to India, at 24½ per ton, ex ship on arrival, the market has been quiet, sellers realising at 24½.

**TIN.**—In English there is very little doing, and the market will, doubtless, remain unsettled until after the Dutch sale. Holders of foreign are already exhibiting signs of weakness, and both Banca and Straits can be bought on easier terms. Banca, 114½; Straits, 112½ per ton. Speculators are, of course, reserving their purchases for the Dutch sale, but as many of the buyers at the last sale must have lost considerably, in consequence of the great decline in the value of this metal, it is most likely they will exercise a little more caution in their limits this time, and not give extravagant prices. **TIN-PLATES** are procurable on slightly easier terms.

**STEEL.**—English and foreign without alteration.

**LIVERPOOL, JULY 1.**—Business in our metal market has been so exceedingly limited since the date of our last report that there is no change to notice. The general aspect of the market is quiet, orders being small and scarce. Some descriptions of manufactured iron of inferior qualities can be obtained under our quotations, and for good specifications prices generally will be found to be in favour of buyers. The market for Scotch pig-iron has been almost inactive; the demand for speculation is for the moment dormant, and for export orders are not plentiful. Prices have scarcely altered since this day week, and until confidence is more established any increased demand cannot reasonably be expected. The shipments are on a large scale, being 12,506 tons, against 6863 tons for the corresponding week of last year. Tin is quiet, operators awaiting the result of the Dutch sales. Tin-plates are in limited request; prices are somewhat unsettled. For copper there is little or no demand; no alteration in prices is expected, however, as smelters are full of orders for some time to come. Lead is dull, and quotations are nominal. The following are the quotations:—Iron: Merchant bar, 6½ 10s. to 6½ 15s. per ton.—Tin: Common block, 118½ per ton; common bar, 119½; refined block, 121½.—Tin-plates: Charcoal, IC, 31s. to 31s. 6d. per box; coke, IC, 25s. to 25s. 6d.—Lead: English sheet, 23½ 10s. per ton; English pig, 21½.—Copper: Cake and tile, 107½ 10s. per ton; best selected, 110½ 10s. per ton; sheathing and bolt, 1s. per lb.—Yellow metal sheathing, 10d. per lb.—Steel: Blistered, 30s. to 40s. per ton; spring, 18s. to 24s.; cast and shear, 50s. to 60s. per ton.

**GLASGOW, JULY 1.**—During the last fortnight there has been no material change in the price of pig-iron; the tone of the market has been quieter, and very little apparent demand for the article. We closed to-day at 52s. 3d., buyers with 14 days to pay, and sellers at the same price, prompt cash. No. 1, Gartsherrie, 58s.; No. 1, g.m.b., 51s.; No. 3, ditto, 50s. 6d. per ton. Shipments, 12,505 tons, against 6863 tons last year.

**QUARTERLY REPORT.**—On the publication of the last statement, showing an increase in the stock, which caused some degree of sensitiveness, the price of pig-iron fell from 55s. to 52s. by the end of April, and has since then fluctuated between these quotations: averaging in April, 53s. 3d., in May, 54s. 3d., and in June, 52s. 6d. per ton for mixed numbers. Though these low prices have induced to extensive exports, still they, with the local consumption amounting to the large quantity of 226,000 tons, are slightly less than the production, which reached 235,000 tons. The stocks have, therefore, only increased during the quarter 9000 tons, are now (exclusive of carbon) 190,000 tons in makers' and warehouse-keepers' stores, against 193,000 tons 12 months ago, when the price was 75s. Whilst a few of the great iron foundries of the district afford evidence of slight improvement (having on hand considerable contracts for railway, water, and gas works), several of the malleable iron-works and small foundries have continued slack, and have been only partially employed. Hence the decrease in the local consumption. But the prospects of a bountiful harvest over all Europe are already diffusing an encouraging tone among commercial circles, and the general course of improvement now setting in, points to an increasing demand for all kinds of iron, both at home and abroad. The production in the last quarter (131 furnaces to-day in blast), 235,000 tons; the production in the corresponding period last year (128 furnaces then in blast) 220,000 tons the shipments and local consumption in the same period of 1847, 240,000 tons.

**NEW YORK, JUNE 19.**—Scotch Pig Iron is in very light stock, but the demand is equally limited, and the market lacks buoyancy; small sales from yard at \$24 per ton, six months. Invoices to arrive can be readily obtained at \$23. The demand for other kinds is equally insignificant, and prices are nominally unchanged.

**FOR COAL,** the demand for domestic continues unusually good for the season, and prices are without important change. The arrivals have been liberal, and we notice a good business doing with the East. The rains have interrupted business at the mines, and somewhat stopped the supplies, but the indications are that the receipts will rise to those of last year. Sales of anthracite at \$34.50 to \$4.25 by the cargo (Lehigh excepted), and from yard, \$4 to \$4.75; and for favourite mines \$5 is obtained. Little business has been done in foreign, and prices are nominal; sales at \$7 for Liverpool Orrel, \$10 for Cannel, and \$4.75 for Sidney and Pictou.

The fortnightly account, which was rather heavy in speculative shares, has just passed over, and although dealers in the MINING MARKET have been busily employed in "settling," we are glad also to be able to report a decided improvement in the tone of the market, and a large amount of business transactions in several mines. What is now required in business generally is a little more confidence, and this we anticipate will be shown more and more as the public mind gets more settled in regard to foreign relations, and the prospects of the magnificent harvest become realised. Since our last the increase of business has been most perceptible in small speculative shares, in which improvements are either reported or expected, and a good average amount of purchases made in dividend mines. South Frances have been fluctuating from 225 to 235, but rather buyers than sellers; and should the decision of the judges (this day) be in favour of the mine, a good rise is looked for. West Basset, 24 to 25; these will also be affected, according to the judgment; though not so much, in case of an adverse decision, as South Frances would be. The case altogether

is one of considerable importance to the mining community, especially in regard to mining leases, and the decision is looked for with much interest; though, doubtless, the House of Lords will be appealed to, whichever way the judgment goes. Wheal Harriett have been very extensively dealt in, at prices fluctuating from 30s. to 37s. 6d., and leaving off 39s. to 41s.; the late discovery continues, and looks like becoming a lasting course of ore; the present value being from 50s. to 70s. per fathom; the mine has had several ups and downs, and it is to be hoped there is now something substantially good. North Frances, early in the week, were 6½, but a great demand springing up, with a very short supply, the price opened on Thursday morning at 7½ to 7½, and rose to 8½, buyers, and they leave off 8½ to 8½, buyers. The mine has further improved at Eales's shaft, and a good course of ore daily looked for. A few months since the lode in this shaft was worth 70s. per fm., for 8 fathoms, and the shares were 20s. each; the lode then split up, but the south part now appears to be getting rich again. Herodfoot have again become in request, and prices advanced from 8 to 8½. Wheal Trelawny have been quiet, at 25s. to 26s. Mary Ann, 45½ to 46½, and in demand. Devon Great Consols have been dealt in at 48s. to 49s.; Vale of Towy are flat, at 20s. to 21s.; Yarners, 50s.; the ends at the 20 are yielding 8 tons of copper ore per fm. Craddock Moor have been more in demand at 34 to 36. Carn Brea, 53 to 55, and have been in request. Lady Bertha remain quiet, at 17s. 6d. to 20s.; Tolva-den, 5½ to 5½; flat; South Caradon, 39s. to 40s.; Sortridge Consols, 25s. to 27s. 6d. East Russell have been flatter, owing to the stoppage of the winze by the water; the 88, however, seems to be coming into ore, and a rich lode here will be more important, if possible, than the winze; shares leave off at 5½ to 6. North Roberts, 34 to 41; Wheal Uny, 4½ to 5, and enquired for; the mine is looking much more promising. Bell and Larnar, 3 to 3½, buyers, and exciting more attention. Great Alfred receded during the settlement to 5½ to 5½, but afterwards rallied and leave off at 6½. Redmoor have had some attention, and large purchases made at advanced prices, but they leave off at 7s. to 7s. 6d.; the demand has been caused, we understand, by a private inspection, the report of which is very favourable for an early profitable mine.

Granbler and St. Aubyn, 112½ to 117½; St. Day United, 4½ to 4½; West Pars, 16s. 6d. to 17s. 6d., and in request. The mine has been inspected by Capt. C. Thomas, who reports very favourably of its prospects. Drake-walls, 29 to 31; Great South Tolgus, 14 to 14½; Par Consols, 18 to 18½; Providence Mines, 55 to 60; Margaret, 47½ to 52½; these tin mines appear flat and neglected just now. Catherine and Jane, 6d. to 8s. 6d.; this mine is said to be improving, and increasing its returns. Trevelco, 12½; this mine continues to open out well. Gernick, 17; nearly half the shares forming the new capital has been subscribed for, and operations ordered to be commenced forthwith. South Carn Brea, 3½ to 3½; East Tamar, 12s. 6d. to 15s.; Pedn-ar-drea, 15s. to 17s. 6d.; North Croft, 4 to 4½; Wheal Margery, 12 to 12½; Wheal Arthur, 4½ to 5; Kelly Bay, 2½ to 3; Merilyn, 4½ to 5; the lode still continues good at the new shaft, and holds out fine prospects. Wheal Tremayne, 1½ to 1½, buyers; Wheal Wrey, 3½ to 3½; Tincroft, 3½; Tamar Consols, 4½ to 4½; Alfred Consols, 9½ to 10½; West Rosewarne, 2; the mine is looking better in the 50 branch, speaking well for the lode at the deeper level. Pendeen, 3½ to 3½, and have been in good demand. Holmbush, 30s.; at the meeting the report read was considered the best received from the mine.

At Camborne Ticketing, on Thursday, 3489 tons of ore were sold, realising 19,022½ 16s. The particulars of the sale were—Average standard, 123½ 7s.; average produce, 6½; average price, 5½ 8s. 6d.; quantity of fine copper, 232 tons. The particulars of the past month's sales were—

Date.	Tons.	Produce.	Standard.	Price per ton.	Ore copper.
June 3 . . . . .	3481	£134 5 0	128 17 0	5 11 6	86 6 0
" 10 . . . . .	4461	129 9 0	129 9 0	4 14 0	81 4 0
" 17 . . . . .	4746	125 5 0	125 5 0	5 7 6	82 16 0
" 24 . . . . .	2472	123 7 0	123 7 0	5 8 6	82 0 0
July 1 . . . . .	3489	123 7 0	123 7 0	5 8 6	82 0 0

Compared with last week's sale, the decline is 17 9s. in the standard, and 1s. 7d. on the ton of ore. Compared with the corresponding sale of last month, the decline is 9½ 4s. in the standard, and 10s. 10d. on the ton of ore.

The following dividends have been declared during June:—

The following dividends have been declared during June:—						
Isle of Man .....	£	11	0	0	£	3,268 0 0
West Wheal Seton .....	8	0	0	0	3,200	0 0
Wheal Bassett .....	6	0	0	0	3,072	0 0
Wheal Mary Ann .....	2	5	0	0	2,304	0 0
Great South Tolgus .....	0	5	0	0	1,250	0 0
Belmohr .....	3	0	0	0	1,200	0 0
East Daren .....	3	0	0	0	990	0 0
Alfred Consols .....	0	3	0	0	768	0 0
Herodfoot .....	0	12	6	0	640	0 0
Merilyn .....	0	2	6	0	625	0 0
Devon and Cornwall .....	0	2	6	0	569	10 0
Botallack .....	2	10	0	0	509	0 0
General (Nova Scotia) .....	0	17	6	0	26,250	0 0
Lusitanian (of Portugal) .....	0	2	6	0	1,250	0 0
						£47,029 10 0



**At Wendon Consols meeting, on June 22, the accounts showed—**Balance from last audit, 1811. 6s. 1d.; tin stock, 2569. 8s.; carriage, 27s. 9s. 2d.; 1872. 3s. 3d.; Labour cost, Feb., March, and April, 2011. 10s.; merchants' bills, 3000. 0s. 1d.; lord's dues, 1500. 10s. 1d.; sundries, 352. 15s.; leaving balance, 3711. 9s. 4d.; of which 1532. (samples for dry, 634; Trevaunant, 701.) was disposed of, and 2179. 9s. 4d. carried to credit of next account. The profit on the three months' working was 1897. 10s. 3d. Captains Thomas Bray, Edward Jenkin, and Walter Johns reported on the position and prospects of the mine. They have fourteen pitches, varying from 5s. to 12s. in 17. The number of persons employed is 292.

**At Wheal Charlotte meeting, on June 22, the accounts showed—**Balance last audit, 1117. 17s. 8d.; labour cost, March and April, 736. 4s. 11d.; merchants' bills, 2021. 9s. 7d.; 1872. 3s. 3d.; Copper cost, March and April, 1300. 7s. 1d.; March and April, 1025. 8s. 1d.; May and June, 1223. 14s. 1d.; July and August, 1202. 8s. 7d.; Sept. and Oct., 1051. 10s. 7d.; Nov. and Dec., 1187. 3s. 6d.; lord's dues, 613. 19s. 6d.; 7788. 12s. 1d.; leaving balance, 6281. 2s. 11d.; leaving balance against the mine, 1507. 9s. 1d. The managers (Messrs. John Taylor and Sons) reported that owing partly to the inclement season during the early spring months of this current year, and partly to the falling off in several tribute pitches, the loss during the first six months of 1858 is not likely to be less than 1800. or 1550. They had not yet driven out the cross-cuts far enough to reach several of the points at which they were expected, and it would be for the shareholders to direct whether these trials should be continued or abandoned. They were prepared to persevere in carrying out any plan which the shareholders generally might agree to, but they desired to be understood to declare their intention to make a fresh endeavour to present the adventure still further. They could not promise to carry on the mine, until the cross-cuts are finished, without a loss, but they recommended the adventurers to continue their quota, and to see the lodes cut at the various points which must now be reached within the next six, nine, or at furthest twelve months longer. Mr. Lingen, referring to the management of the concern, read numerous extracts from the managers' report, and from letters from himself, in which he recommended the reappointment of Capt. Matthew Francis as resident agent on the mine; the meeting, however, did not concur in this recommendation.

**At South Wheal Tolgus annual meeting, on June 15, the accounts for 1857, ending Dec. 31, 1857, showed that the expenditure had been 14,232. 7s. 11d.; and the receipts for copper ore (after the deduction of lords' dues, 1173. 19s. 5d.), 15,631. 15s. 5d.; leaving a profit of 2112. 7s. 6d. For four months ending April, 1858, the expenditure had been 4538. 16s. 4d.; the net receipts for copper ore, 5455. 1s. 9d.; showing a profit of 916. 7s. 5d. The appointment of Mr. John Hay as purser was confirmed; as was also a resolution for subdividing the shares into 512 parts.**

**At North Wheal Busy meeting, the accounts showed—**Balance from last audit, 1011. 18s. 10d.; Feb., March, and April costs, 927. 10s. 2d.; 1858. 9s. By call, 1024. 4s.; copper ore, tinstuff, jack, and manure, 349. 4s. 11d.; leaving balance against the mine, 596. 7s. 1d. Capt. W. Crase reports that "the whole of the ground stopped at bottom of the 7th level, on Painter's lode, east of western shaft, does not exceed 10 fms., from which I calculate we have raised 65 tons of blende, which, at 21. 15s. per ton, would be 1375. 10s.; 10 tons of copper ore, at 31. 30s.; and tinstuff, according to the sample tried, 40s.; 2485. 15s.; making lode worth, on an average of 10 fms., 241. 17s. 6d. per fm."

**At Wheal Sidney meeting, on June 23 (Mr. W. T. James in the chair), the accounts for April and May showed—**Balance last audit, 6311. 11s. 8d.; mine cost, 2571. 10s. 1d.; merchants' bills, &c., 931. 6s. 5d.; dues, 347. 1s. 8d.; 11561. 15s. 6d.; by call, 569. 1s. 5d.; sales of tin, 2361. 0s. 5d.; arsenic, 192. 10s.; tin sampled (estimated), 330. 1s.; leaving balance against mine, 521. 7s. 6d. The last sale of tin realised more than estimated, and they have also sold arsenic, which together improved their position by about 700. The tin for the present year, they have commenced the new engine-shaft about 100 fms. north of the present one, and are proceeding with the alterations necessary and determined on for making the present pumping power more complete.

**At Wheal Wrey Consols meeting, on June 22 (Mr. Peter Clymo in the chair) the accounts for Jan., Feb., and March showed—**Mine costs and merchants' bills, 3291. 17s. 6d.; Sale of lode, &c., 3208. 5s. 2d.; South Caradon for pitwork, 161. 18s. 1d.; making loss, 1057. 19s. 3d.; which deducted from credit balance from last audit leaves 2711. 0s. 6d. now in hand. Capt. Peter Clymo, W. Hancock, and R. Roskilly reported that the stopes and pitches are producing much as usual.

**At Frank Mills Mine meeting, on Tuesday (Mr. W. Porter in the chair), the accounts showed—**Balance last meeting, 359. 3s.; mine cost, March, 467. 8s. 5d.; ditto, April, 501. 2s. 6d.; coal, 164. 13s. 9d.; timber, 108. 2s.; horse, 361. 10s.; discount on ore bill, &c., 10s. 1d.; dues, 58. 8s. 11d.; 1700. 4s. 5d.—Calls received, 293. 1s.; by call, 523. 5s. 8d.; leaving balance against the mine, 551. 17s. 9d. A call of 1s. per share was made. Capt. J. P. Nicholas and J. Cornish reported upon the position and prospects of the mine.

**At Trevoile Mine meeting, on June 21, the accounts showed—**Balance last audit, 1500. 17s. 6d.; labour cost, Feb., 323. 0s. 3d.; March, 303. 9s. 2d.; April, 427. 4s. 8d.; May, 276. 1s. 3d.; merchants' bills, 319. 18s. 4d.; lord's dues, 352. 3s. 1d.; 1315. 14s. 1d.; Calls received, 1536. 1s.; copper ore sold, March, 327. 6s. 5d.; May, 203. 14s. 10d.; leaving balance against mine, 966. 13s. A call of 1s. per share was made. Capt. Stephens, Blissett, and Lean reported upon the operations at the mine.

**At Wheal Cupid meeting, on Monday (Mr. Hallett in the chair), Mr. Edw. King (the secretary) reported that 557. 15s. had been received on account of calls, and 100. on account of materials. A resolution was passed that proceedings be immediately taken against all shareholders in arrear of call. The meeting was then adjourned for one month.**

**At the Holmshush Mining Company meeting, on Wednesday (Mr. W. H. Fitcher in the chair), the accounts showed—**Balance against adventurers, 1196. 8s. 10d.; and in the estimated account of assets and liabilities the balance against the mine was 641. 9s. 10d. The proceedings, which are fully detailed in another column, terminated with a vote of thanks to the Chairman.

**At Round Hill, in the wine sinking below the 40 south, the lode is 4 ft. wide, presenting indications of an exceedingly promising character; in the cross-cut driving west in this level they were intersecting strings of rich ore, and calculated cutting the main part of the lode in about 9 fms. further driving. They sampled 45 tons of lead ore on June 18.**

**At the Catherine and Jane Consols Mine, they would sample this day (Saturday) about 10 tons of lead ore, and hoped that the improved appearance of the mine would enable them to increase the future returns.**

**At the Royal Santiago Mining Company meeting, on Thursday (Mr. J. Taylor, jun., in the chair), the accounts showed balance at bankers 772. 6s. 1d. The loss on the half-year's working, ending Feb. 28, was 1499. 16s. 3d. A resolution was passed recommending the directors to make a call of 1s. per share. The proceedings, which are reported in another column, terminated with a vote of thanks to the Chairman.**

**At the Port Phillip and Colonial Gold Mining Company meeting, on Monday (Sir Charles Rich, Bart., in the chair), a satisfactory statement of the directors was read. A resolution was passed to confirm one passed at a former meeting, to reduce the minimum number of directors to five, to which an amendment was proposed that they should be not less than six. Upon a ballot being taken, it was found that the holders of 60,000 shares were in the majority, consequently the proceedings were null and void. A full report appears in another column.**

**At the Quartz Reduction Mining Company meeting, on Thursday (Mr. G. Roper in the chair), it was resolved that the meeting should be further adjourned for a month, and that in the meantime a statement of the position of the company should be laid before the shareholders, and that the directors should be authorised to make any necessary purchase on the judgment against the company for the subscribers' sole benefit.**

**At the South Australian Company meeting, on Wednesday (Mr. E. Divett, M.P. in the chair), the accounts showed—**Balance in favour of company, 60,365. 10s. 11d. A dividend at the rate of 7 per cent. per annum, or 35s. per share, payable on July 15 and Jan. 15 next was declared. The retiring directors were re-elected. The report of the directors stated that the affairs of this company continued to improve. They did not announce any large advance of income, but it gradually increased year by year, and the property generally improved in value, keeping pace with the steady advance of the colony. After a lapse of 22 years since the formation of the company it is a great satisfaction to the directors to find that the policy originally adopted, and which had been cautiously followed out by them, had proved perfectly sound. With regard to the mineral portion of the company's property, the report states:—"No alteration has been made in the value of this property except a trifling reduction from the sale of 54 acres in the township of Kiamook. The directors are happy, however, to state that a large portion of this land has been leased during the year, chiefly for pasture; and that the Kiamook Mine continues to be worked, and gives favourable indications of increasing productiveness. The gross rental amounts to 1273. 2s. 2d., including the proceeds of ore received for royalty, and shows an increase of 419. 3s. 8d. over the preceding year. Another small shipment of copper ore and regulus, received as royalty, has recently arrived, and is now on its way to Swansea for sale: 2493 acres of land have been leased during the year, leaving 3475 acres still unoccupied. It was intimated that in future the report would be issued to the proprietors a week or ten days before the meeting. Votes of thanks to the chairman, directors, manager, and other officers, at home and in the colony, terminated the proceedings.

**The Royal Santiago Mining Company have issued a statement of accounts for the half-year ending Feb. 28, showing the expenditure and returns for that period. Managers, captains, miners, and clerks' salaries and wages paid at the mines in Cuba, 1149. 18s. 9d.; native miners' wages, 770. 2s. 8d.; labourers' wages, 1400. 17s. 8d.; provisions for same, 453. 1s. 1d.; hospital expenses, 567. 3s. 2d.; timber, candles, &c., 1250. 1s. 1d.; transport of ore and materials, 1290. 19s. 4d.; captains' and miners' wages paid to their families in England, 987. 2s. 7d.; merchants' bills, 775. 14s. 2d.; directors, auditors, clerks, &c., 311. 10s. 1d.; interest and discount, 741. 9s. 2d.; 8327. 19s. 7d. Ore and precipitate sold, and on voyage home, 7028. 3s. 4d.; leaving balance against the company, being loss on the half-year's working, 1499. 16s. 3d. The capital account to June 17 showed cash at bankers, 772. 6s. 1d.**

**At the New Grand Duchy of Baden Mines, the lode at the engine-shaft is about 4 ft. wide, and worth about 10l. per fathom.**

**Our Sheffield correspondents (Messrs. Smith) state that there is not much change in the prices of mining shares. Chapel Dale shares are flatter, and offered at 3l. prem. Cowden Bae offered at 1/4 prem., and no buyers. Eyam firm at 40 to 42. Mill Town a buyer at 3s. and sellers at 3 1/4. New Midland, 3 1/4 prem. North Derbyshire, 3/4 to 1, with 2 1/4 paid. Prince of Wales done at 3 1/4, buyers—mine looking very well.**

**The Eastern Steam Navigation Company, it is understood, find themselves under the necessity of abandoning their scheme of raising by means of annuities the 200,000l. required for the equipment of the Great Eastern. It will be remembered that a pledge was given that, unless the entire sum was taken up, the project would not be proceeded with. A rumour prevails that the company intend to ask Parliament to regard their work as a national one, and to help them out of their difficulty by advancing 200,000l. on the security of the vessel, on which some 600,000l. has already been expended.**

**The directors of the Buffalo and Lake Huron Railway Company are prepared to receive applications for the appointment of general manager, from gentlemen qualified by previous experience to undertake the executive of the affairs of the company in Canada.**

**Creditors of the Birkbeck Life Assurance Company are required to prove their claims before Vice-Chancellor Kindersley, who proposes on July 14 to appoint an official manager.**

**At the Bombay, Baroda, and Central India Railway adjourned general meeting, held on Wednesday, to ascertain the result of a ballot which had been taken on a proposition of Mr. Hartridge (moved as an amendment to the directors' report), for increasing the number of directors to eight (Mr. P. T. Fresh, the chairman of the board of directors, presided), and announced the result of the ballot:—For amendment, 6570; against it, 1865; majority against directors, 4705. A long discussion ensued, which resulted in an adjournment until July 12.**

**The Jamaica mail arrived last night at Southampton. The mining intelligence continues very favourable; we shall give the usual details next week.**

#### SALES OF COPPER ORE—MARCH TO JUNE, 1858.

Mr. JAMES CROFTS hands us the following analysis of the sales of copper ore for the three months ending June 30, 1858, which we publish with pleasure, as assisting the statistics of mines, by affording an easy reference to the value of the ores of a particular mine, and, therefore, forming an element in the estimation of its value as an investment:—

Name of Mine.	Aver. per ton.	Name of Mine.	Aver. per ton.
Trevoile's Ore	25 6	St. Day United	25 9
Symonds Ore	25 6	Hawknor	5 8
Visick's Ore	21 2	Rosewarne	5 7
Tamar Slag	19 0	Devon and fourteen	5 7
Granby and St. Aubyn	16 3	West Anna	5 6
Great Work	15 1	Wheal Buller	5 6
Wheal Henry	12 2	Wheal Mar Great Consols	5 5
Killmarth	11 1	Wheal Cliffrid	5 5
Rotallack	11 6	Wheal Elze	5 2
Wheal Kitty	10 2	North Basset	5 3
North Downs	9 17	Cliff and Ventworth	5 3
South Caradon	9 11	Great Alfred	5 2
Tolvadden	9 9	Wheal Unit	5 1
Wheal Friendship	9 4	Dolcoath	5 1
North Frances	8 14	Tincroft	4 19
East Russell	8 13	Phoenix	4 18
Holmshush	8 9	Wheal Franco	4 18
Par Consols	8 1	Cambarne Vein	4 17
Knackack Moor	8 0	Devon Great Consols	4 16
St. Aubyn and Grylls	8 0	Pembroke and East Crinnis	4 16
Wheal Reapryn	7 15	Devon and Cornwall	4 16
West Fowey	7 12	Wheal Seton	4 16
Wheal Basset	7 7	Wheal Emma	4 16
Old Basset	7 5	Redford United	4 15
Wheal Charlotte	7 5	Marke Valley	4 14
St. Austell Consols	7 4	Bolling Well	4 14
West Jane	7 3	Carnack Dews	4 13
West Seton	6 19	North Unit	4 13
South Crinnis	6 19	East Pool	4 12
Gonamena	6 17	Wheal Harrett	4 12
East Basset	6 14	North Croft	4 10
Great South Tolgus	6 12	Croft Hill	4 9
West Caradon	6 11	Carvannal	4 9
Wheal Teldy	6 11	South Croft	4 9
Fowey Consols	6 11	West Dams	4 9
East Alfred	6 11	Trevel	4 8
Pembroke Consols	6 10	Cambarne Consols	4 8
South Tolgus	6 8	United Mines	4 6
West Stray Park	6 6	Carn Brea	4 6
Calstock Consols	6 5	North Ellen	4 2
South Frances	6 5	Tywarthille	4 0
North Rosecar	6 5	North Pool	4 0
West Crinnis	6 4	West Alfred	3 19
Enys's Ore	6 4	Creaghawase	3 19
West Basset	6 3	South Carn Brea	3 19
Wheal Basset	6 2	Halnamund	3 19
Wheal Margery	6 2	Wheal Edward	3 18
Levant	6 0	Kelly Bray	3 17
West Providence	5 19	Wheal Maundin	3 16
Trebarvah	5 19	Halse's Ore	3 16
Sordridge	5 19	Devon Buller	3 16
Alfred Consols	5 18	Kennegav	3 14
West Par	5 18	Virtuous Lady	3 14
Consols	5 17	Tivy Consols	3 14
Hingston Down	5 16	Duke of Cornwall	3 7
Wheal Agar	5 16	Penden	3 6
North Bury	5 16	Wheal Russell	3 6
South Dolcoath	5 16	South Crenner	3 4
Pednam-dra	5 16	Rosewarne Consols	3 2
Wheal Uny	5 15	Rashleigh's Ore	3 2
East Tolgus	5 14	Perran St. George	3 1
Condurow	5 12	Bawden's Ore	3 1
Trevel	5 10	Wheal Zion	3 1
Collacume	5 10	Wheal Bertha	3 1
Guskus	5 10	Crowdale	3 0

13 mines below 3l. per ton—highest 2l. 16s., lowest 17. 5s. 4d.—not enumerated.

**THE TIN TRADE.**—Not long since some of our correspondents were anticipating that the tin brought forward at the usual annual sale of the Netherlands Trading Company would realise nearly as much as in 1857; and the fallacy of such conclusions being shown, too many have rushed to the other extreme. The sale will take place on Tuesday next, and consist of 190,800 slabs (about 6000 tons), against 190,559 slabs in 1857, and 167,382 slabs in 1856. In reference to the sale, Messrs. Goll and Co., of Amsterdam (June 30), write:—

"Although we refrain entirely from giving an opinion, we cannot help advising our friends, in their own interest, not to allow themselves to be led too much astray by too dull accounts of other houses. We do not wish to call in question the arguments which we believe at the same time, that a careful consideration of the statistics will present arguments in abundance by which to judge of the article in a more favourable light. If, according to the tables, the exportation may have fallen off to some countries, it has gained, on the other hand, to many quarters a considerable extension, and in spite of the crisis and its prejudicial consequences, the deliveries from the date of the company's sale exceed those of the preceding year by 7300 slabs, an increase which has been particularly striking during the latter months, as appears from the following tables:—

DELIVERIES SINCE THE LAST PUBLIC SALE.	1857.	1858.
July	15,608	63,343
August	15,608	23,210
September	15,608	33,827
October	15,608	10,193
November	15,608	10,193
December	15,608	10,193
January	15,608	6,250
February	15,608	7,210
March	15,608	7,382
April	15,608	6,523
May	15,608	2,731
June	15,608	4,000
Slabs	173,485	166,185

The stock on warrants consisted at the end of May 28,024. 8,255. 13,737. Delivered in June 5,479. 1,305. 1,777.

And the remaining stock amounts to 22,545. 6,530. 11,960. Stock in hands of Trading Society 15,330. 185,800. 167,057. which was lost off the cost of Holland on Oct. 9, 1857. After 60 years' immersion, the gold looks as fresh as if it had just been taken out of the Bank. The silver bars, on the other hand, have become externally almost black under the action of the salt water; and some of the dollars which have been also saved are so much corroded, that they are worth only 1s. or 2s. each.

The Atlantic Telegraph Company shares, which have lately been offered at 5000, came suddenly into demand yesterday, and were quoted at 6000. (with 10000 paid). Favourable rumours were simultaneously circulated with reference to the progress of the operations on the ocean, but nothing definite transpired.

Messrs. Abell and Langley, bullion brokers, possess gold bars to the value of 11,000l., and silver bars valued at 4000l., fished up from the wreck of H.M.S. *Latonia*, which was lost off the coast of Holland on Oct. 9, 1857. After 60 years' immersion, the gold looks as fresh as if it had just been taken out of the Bank. The silver bars, on the other hand, have become externally almost black under the action of the salt water; and some of the dollars which have been also saved are so much corroded, that they are worth only 1s. or 2s. each.

The return of the Bank of England for the week ending Wednesday, compared with the previous weekly return, showed the following results:—

These changes are sufficiently remarkable. The extensive demand at the Bank caused an enormous increase in the "other" securities; but, as the whole of the money was not wanted immediately, a considerable portion was at once re-deposited in the establishment as "other" deposits. The reserves diminished upwards of 1,000,000.

The *Gazette* statement of the movement of the precious metals for the week ended Wednesday last, gives the following totals:—Imports of gold, 46,790; exports of gold, 166,786; imports of silver, 17,337; exports of silver, 68,691.—*Daily News*.

These changes are sufficiently remarkable. The extensive demand at the Bank has caused an enormous increase in the "other" securities; but, as the whole of the money was not wanted immediately, a considerable portion was at once re-lodged in the establishment as "other" deposits. The reserves diminished upwards of 1,000,000l.

The *Gazette* statement of the movement of the precious metals for the week ending Wednesday last, gives the following totals:—Imports of gold, 46,790l.; exports of gold, 176,786l.; imports of silver, 71,337l.; exports of silver, 68,691l.—*Daily News*.

Messrs. Abell and Langley, bullion brokers, possess gold bars to the value of 11,000l., and silver bars valued at 4000l., fished up from the wreck of H.M.S. *Latonia*, which was lost off the coast of Holland on Oct. 9, 1857. After 60 years' immersion, the gold looks as fresh as if it had just been taken out of the Bank. The silver bars, on the other hand, have become externally almost black under the action of the salt water; and some of the dollars which have been also saved are so much corroded, that they are worth only 1s. or 2s. each.

The Atlantic Telegraph Company shares, which have lately been offered at 5000, came suddenly into demand yesterday, and were quoted at 6000. (with 10000 paid). Favourable rumours were simultaneously circulated with reference to the progress of the operations on the ocean, but nothing definite transpired.

**RAILWAY TRAFFIC.**—The Traffic Returns of Railways in the United Kingdom for the week ending June 26 amounted to 471,990l., and for the corresponding week of 1857 to 503,290l., showing a decrease of 31,300l. The gross receipts of the eight railways having their termini in the metropolis amounted for the week ending as above to 197,689l., and for corresponding weeks amounted to 212,117l., showing a decrease of 13,747l. The decrease on the Eastern Counties amounted to 1241l.; on the Great Northern to 1220l.; on the Great Western to 1108l.; on the London and North-Western to 9832l.; on the London and South-Western to 6721l.; on the South-Eastern to 5511l.—total, 14,316l. But from this must be deducted 941l., the increase on the London and Blackwall; and 478l. on the London, Brighton, and South Coast, leaving the decrease, as above, 13,747l. The receipts on the other lines in the United Kingdom amounted to 274,301l., and for the corresponding week of last year to 292,457l., showing a decrease of 17,556l., which, added to the decrease on the metropolitan lines, makes the total decrease 31,300l., as compared with the corresponding week of 1857.

LEAD ORES.			
Mines.	Tons.	Price per ton.	Purchasers.
East Lothian	110	£13 17 6	Walker, Parker, & Co.
Cwmystwyth	100	13 5 0	Fanther Company.
Goginan	47	17 4 0	Newton, Keates, & Co.
ditto	11	15 3 0	ditto
Foxdale	100	13 6 6	T. Somers.

SOLD ON THE 29TH JUNE.			
Mines.	Tons.	Price per ton.	Purchasers.
Miners	120	13 0 6	Walker, Parker, & Co.
ditto	118	13 0 6	ditto
ditto	30	12 15 0	Fanther Company.
ditto	194	12 15 6	Newton, Keates, & Co.
ditto	45	17 1 6	A. Eytton.
New Crow Hill	13	16 2 0	—

BLACK TIN.			
Mines.	Tons.	Price per ton.	Purchasers.
Wheal Bal	3 9 3 16	£25 9 0	Chyndour.
ditto	3 1 3 19	23 15 0	197 2 0—ditto

SOLD ON THE 24TH JUNE.			
Mines.	Tons.	Price per ton.	Purchasers.
Great Wheal Vor	18 17 1 13	68 5 0	1287 15 2—Mellaneer.
ditto	4 0 3 22	58 10 0	2



# THE PROGRESS OF MINING IN 1857, BEING THE FOURTEENTH ANNUAL REVIEW.

By J. Y. WATSON, F.G.S., Author of the *Compendium of British Mining* (published in 1848), *Glancing among Mines and Minerals*, &c.

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## Notices to Correspondents.

\* Much inconvenience having arisen, in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly filed on receipt: it then forms an accumulating useful work of reference.

**HOMOGENEOUS METAL.**—My attention has been directed to a paragraph in your Journal of June 26, referring to my homogeneous metal. I must again repeat, that "homogeneous metal" is not cast-steel, but a metal combining the strength of cast-steel, without the brittleness of that metal. It is simply compared to cast-steel as to its tensile strength, as it is also compared to copper for the extreme ductility it possesses. The 54th plate resisting six atmospheres, and sheathing Dr. Livingston's steamer, carry their own reputation.—P.S. The homogeneous metal has been in the market since 1853.—J. BENNETT HOWELL: *Harford Steel Works, Sheffield, July 2.*

**TREATMENT OF IRON ORES.**—Observing the article on the new process of Mr. H. Bessemer, p. 425, I obtained a specification of his patent, which contains on the first page the notice, "Void by reason of the patentee having neglected to file a specification, in pursuance of the conditions of the Letters Patent." Perhaps it would be as well if the public were made aware of this fact, as such a notice might tend to mislead if it is not mentioned. The use of chlorine is already secured, years ago, by another party (Calvert), and appears now to begin to be appreciated.—OBSERVER: *Manchester.*

**WHEAL GUSKES.**—Had your correspondent, "Fogatus," attended regularly the meetings that were convened at the Wheal Guskess office, he would have long since discovered that the property has only fallen into its present complications through the culpable neglect and apathy of the shareholders. If he requires any information on that head, he will readily, I am convinced, obtain it, either from Mr. Jeffrey, the secretary, or Mr. Berry, the solicitor. It was sometimes difficult to make a meeting—some of the committee but seldom attended, scarcely any one could be found to take the chair. There were pressing claims, large arrears of calls, and the property deeply indebted to the secretary, who for that purpose had pledged his own credit. The meetings were public, the reports appeared in the *Mining Journal*, but the majority of the proprietors keep aloof from all proceedings. I agree with him, that it would be advisable that a committee should be formed for the purpose of energetically prosecuting the undertaking. It is much better that it should be in other hands than as it is now. The machinery and plant are deteriorating daily, and the longer they remain unemployed the less in value will they become. In all probability another meeting must be shortly convened. I would impress, then, that as many of the proprietors as could attend should do so, and then finally decide upon what steps are to be taken, either for carrying on the mine, or selling the lease and plant for the best price we can obtain.—M.

**GOLD REDUCTION.**—Many of your readers will hail with satisfaction the announcement of Mr. Squire, that on July 15 he is about to hold a public meeting, in order to explain his process. It is to be hoped that he will be enabled to prove it by uncontrovertible facts; it would be better, if it were possible, that some actual experiments should be shown. This question is one of great importance, and deserving the attention not only of those previously concerned, but likewise all scientifically engaged in metallurgical pursuits. My only regret is that the gentlemen advertising in the pamphlet offered practically to explain in public his process: he is prepared to throw aside all concealment, and let his discovery stand on its own merits.—JUSTITIA.

**ANGLO-CALIFORNIAN GOLD MINING COMPANY.**—Some few weeks since a correspondent stated that he understood at the offices the liquidation of the company was to have shortly commenced; nearly all the contributions had been paid by the shareholders, and they were at present suing a few dissentients. A curious fatality appears in this company to hover around our legal proceedings. The directors talked very largely of their intentions with regard to Sir Henry Huntley; he, on the other hand, was going to expose their proceedings: at last we were informed that the question was about to be settled by arbitration. I would ask Mr. Goodman, through the medium of your Journal, whether it is settled, and what sum has been paid to Sir Henry Huntley, although it is stated the directors had a claim against him. The twelve months since the liquidators were appointed have now nearly expired. Surely, some statement should be issued to the shareholders, in order that they might know the position of affairs. Had the directors been allowed to wind-up the affairs of the company, we should not have to complain of these tedious and, in the opinion of many, unnecessary delays.—FREDERICK: *Poole.*

**ROSIE AND CANADA LEAD COMPANY.**—I am told by some who have visited these mines that the Victoria lodes, in their proximity, are said to be very valuable. Probably some of the present shareholders may be able, through the medium of your columns, to inform me if such be the case, as there are many here of opinion that the solution of this question would in some degree affect the subscriptions.—B.: *Birmingham.*

**ROSIE AND CANADA LEAD COMPANY.**—Your correspondent, "Septic," would lead the world to think there is no discretion necessary, or credit due, to the managers of an undertaking for availing themselves of an option to decline a portion of the property that was found to be "worth nothing," and in the seeming innocence of his mind he would make it an impossibility that all that was stated in the pamphlet included should not exist. The present directors totally disregard puffing pamphlets. They have issued a prospectus, and are bound by its contents, and from what I know of them, they would only speak to facts as they are, and which have come to their knowledge from authentic sources. I have not read the pamphlet, therefore can say nothing about it; but this I can say, as a considerable shareholder, and having the utmost confidence in the directors of the company and their management, I have always understood they would not buy a pig in a poke. Upon inspection by an experienced and practical miner, the taking of the Bedford Mine in Canada was declined, and the present directors from that moment confined themselves to working the Rosie and Victoria Mines only. If, as I understand "Septic" to say, the pamphlet states that the Victoria Mine is in the vicinity of the Bedford, either he is wrong, or the writer of the pamphlet can know nothing of the locality, for one is in America and the other in Canada. But why these repeated weekly attacks by your correspondents upon a company that has now been pursuing its works for two years, and until the issue of their prospectus, some two months ago, did not come before the public at all, or in any way whatever attempt to make a market for their shares? Can it be envy from some rival interest? or are they from disappointed speculators? Let my brother shareholders have confidence in the management, and let them support the directors in their exertions to develop the resources of our property, which, with its many local advantages, in time will be second to none.—A. BARNARD.

**GOVERNMENT SCHOOL OF MINES.**—I notice a remark that the lectures of the Bristol School are about to be published, and at the same time an opinion is expressed that those delivered there would be found useful. It must be remembered that those delivered at the Bristol School are by different able gentlemen on various subjects, and each of their discourses may, with great advantage, be published in a separate form. Here, however, the case is different. The courses of lectures extend over two terms; each of these is illustrated by diagrams, models, specimens, &c.; the commencement of the naturally elementary is in the paper processes he is made acquainted with minerals, by observing them in their several distinct species, and the metals in the various stages of manipulation. The same may be observed of the geological course, and that of chemistry, which is illustrated by experiments. It is the opinion of those acquainted with the subject that the publication of such lectures, without the practical illustrations, would be of comparatively little value to those not able to attend, while it might be productive of some injury, as probably there could be found students who were not over sedulous, and would not object to avail themselves of a printed publication, which would in some degree relieve them from that close and unwearied attention they are now obliged to bestow, if they intend to pass the examinations. I believe, however, that lectures delivered to the working men, containing as they do much general and useful information, would find a ready sale, and be hailed as a boon by that class for whose behoof they are delivered.—A. STUDENT.

**SCIENTIFIC TERMS.**—"A Travelling Geologist," while discoursing of vegetable plants, complains of the use of Latin and Greek words by some of his own wandering fraternity. It appears to me that he verifies the old adage, "two of a trade never agree." If he objects to foreign words, why does he employ the terms *fungi*, *aquaria*, and *arcana*. This appears to me to be very inconsistent, especially as in the same letter he decries that which he practices himself.—MATTER OF FACT.

**ASTURIAN MINING COMPANY.**—It was announced in the Journal of June 19 that the liquidators of this association were about to pay a final dividend of 21 per share. This was not given as a rumour, but authoritatively stated. I should wish to know if there has been any further delay, either here or in Paris?—H.

**COMPANY OF COPPER MINERS OF ENGLAND.**—I am of your correspondent's ("R. F. D.") opinion, that a public meeting should be called, and Mr. Gilbertson there inform us what the expenditure has been upon the church, and afford those explanations with regard to the size and decorations of the building which have so lately been commented upon. There are many who believe that it is a miniature cathedral, instead of a modest church for Christian worship. If this erroneous impression were removed, I am convinced there are several who would be willing to subscribe their fair quota, but who now refuse to do so on principle. This given, and the assurance that no sectarianism is employed, will, I am of opinion, probably have the desired effect.—T. P.

**CHANCELLORVILLE FREEHOLD GOLD MINING COMPANY.**—It has been reported that a new company is about to be formed for working the mines in America. I would suggest to them that they should obtain a faithful report of their value, and likewise some account from their predecessors of the cause of the dissolution of the late company. Were this done, the public would have greater confidence in the undertaking, and might be induced to subscribe.

**EAST WHEAL RUSSELL.**—I cannot understand why our money and time should be wasted, as it appears to me, in driving the 88 ft. level at East Wheal Russell such a distance (nearly 50 miles, if I mistake not), through poor ground, before it can reach under the ore ground begins in the 8 ft. level. There is Homersham's shaft much nearer, within 15 fms. of this ore ground, I think. Why not put all hands to sink that, and then drive east from it? Perhaps the situation of the machinery may be suggested; but that must be moved, I presume, to Homersham's shaft, so why not do so at once? I see a suggestion in your Journal of June 19 as to driving from some mine, but surely the discontinuance of the tedious and expensive process of persevering with this 88 ft. level should be the first thing to be attended to.—MINER.

**THE COPPER SALES.**—"M. E." (a Givet).—The information required is given in another column, and will in future be regularly furnished. The difference referred to probably arises from some trifling inaccuracy in the calculations.

**WHEAL EDWARD.**—In the report of Capt. Pope, which appeared in your Journal of last week, I notice he values the reserves of ore in the mine at 10,000 t.; he also states that they can supply about 100 tons per month for the next six months, making altogether 780 tons. Now, taking the average price of the last few months, according to the Ticketing, Paper, &c., at 11s. 6d. per ton, it would make about 3200l.—apparently making a deficiency of about 6800l.; this certainly should be explained.—MINER.

**"MANAGING" MEETINGS OF COMPANIES.**—The course adopted by the directors of the Bombay, Baroda, and Central India Railway Company involves a principle of the most vital importance to shareholders in joint-stock companies. After a ballot on a preliminary question, which showed that the body of the shareholders were against the directors, a motion was made to adjourn the meeting, and an amendment that the meeting proceed to business having been carried by a large majority, the Chairman announced that he had received a requisition for a ballot, and therefore adjourned the meeting to July 21, when the ballot should be taken. The effect is, that a ballot on July 21 will decide whether the meeting on June 29 should adjourn or proceed to business. The very statement of such a decision will excite a smile, but the practical consequence is that any five shareholders can always stop the business of every company, by moving an adjournment of the meetings, and demanding a ballot. The shareholders in the present case refused to make themselves so utterly ridiculous, and the directors having retired, proceeded with the business of the day. The difficulties shareholders meet with when they endeavour to look into the affairs of these companies are already sufficiently great, but this system of adjourning the meeting against the expressed wish of the shareholders whenever the directors approach any unpleasant subject, will close the principal means of obtaining information hitherto supposed to exist in the annual meeting.—A. SHAREHOLDER.

**WHEAL WILLIAM BELL** is in the Tavistock district, and is being carried on as a private speculation by one gentleman alone. It is being worked in conjunction with Wheal Eliza—no shares have been offered to the public. For the information of "Querist," I may state that, in consequence of the hot weather, the air has become very foul in the adit end. They are now putting up an air machine, and should "Querist" be in the district, the captain will be glad to see him.—MINER: *Tavistock.*

**"J. E. Jun." (Fens Stanley).**—There was a company in existence some time back, called the Devon Consols West Mine, which has long since ceased working, and the secretary gone to Australia. We cannot ascertain that there was ever an adventure under the name of West Devon Consols Mine.

**MINE AGENT FOR THE CALLINGTON DISTRICT.**—Will you allow me to suggest that the party who advertised in the Journal of May 29, for a mine agent for the Callington district, requesting applications, with testimonials, &c., to be addressed to "Pick," at the Post-office, Moorgate-street, should return the testimonials forwarded to him—those belonging to the undersigned will be esteemed a great favour.—T. MITCHELL: *Rose, near St. Day, Trear.*

**OBTAINING MOTIVE POWER.**—In the Journal of June 12 we referred to an ingenious invention, patented by Mr. Kyshegic, of Constantinople, for obtaining and applying motive power. The apparatus consists of two vessels, or cylinders, filled with water, which are provided with covers at their tops. Each of these covers are lifted up and down by means of a crane; the force is transmitted from the cranes to the covers of the cylinders by means of a series of levers, worked by two or three men. There are four screws on each cover, and an additional crane in the middle of each cover; a chain is attached to the crane first mentioned, and the force is conveyed through this medium to each crane that is fixed in the centre of each cover. The cover of the cylinders compresses the water which is contained in the cylinders, and the compressed water passing through a pipe which is connected to the shaft of another wheel, in shape somewhat like a paddle wheel, which is placed in the centre of a large air-tight vessel, which is filled with water, and is worked by means of powerful levers, which are mounted on the cover of this air-tight vessel, which bellows are also worked by a motion derived from the paddle-wheel shaft by a system of gearing, and the force of the air driven from these bellows assists in driving the machine. The paddle-wheel is filled with holes at the side of its paddles, through which the air passes, and thus a degree of elasticity is obtained. This paddle-wheel is also fitted with a shaft, on which it works, which shaft passes through the sides of the air-tight vessel, and gearing is attached to this shaft, by means of which the motion is transmitted, and thus actuates any description of machinery. If the apparatus be constructed on a small scale, an atmospheric system may be worked by two or three men provisionally required; the manual work is required only to start with, and afterwards the lever system will continue its motion by the assistance of the compressed air which is supplied from the air-tight vessel; but if on a large scale, then this provisional power may be supplied from a small steam-engine, which may be used to drive the gearing. When the machine is thus made upon a large scale, another arrangement may be brought into operation, which consists in using compressed air contained in the air-tight vessel, and which can be applied to work an ordinary atmospheric engine.

**GOVERNMENT SCHOOL OF MINES.**—I think it would much conduce to the success of the School if a revised edition of the lectures were published at the end of each session, so as to be available for those who have not opportunities of attending the lectures. The Bristol Mining School, I am glad to hear, has determined upon a change of its lecturers. At present, the Government people should not stop half way in their good work.—I. T.: *Stock-upon-Trent.*

**MINING IN THE HILLS.**—Under this heading, last week, we inserted some remarks on various Welsh mines. The particulars we are assured, are in several instances erroneous, especially as to Dyffryn and Rhoswydol Mines—these mines presenting no such discouraging appearances as those represented. Instead of the former having dwindled down to 13 tons of ore per month, in the last three months, which were the lowest for four years, it produced nearly double this quantity per month, as the sales in the Journal prove. It is true that for the present month (July) not more than 10 to 12 tons will be dressed, but then they are putting up a large wheel, the most powerful in Montgomeryshire, and whilst this is being done the mine, of course, will be almost at a stand. We need not enter into details of the mine, as a complete quarterly report from the district, which is being prepared, will appear in next week's Journal, giving an accurate statement of the actual position and prospects of the several undertakings.

**MINING IN FLEINTSHIRE.**—As a "Welsh Miner" asserts that the Welsh agent who inspected the Pantasa Mine did not make any reflections upon Mr. Turton's management, we must consider there is some mistake, but I must state that I am in possession of letters from shareholders something to that effect. This is certain, that Mr. Turton, who is a most respectable man, has been most unfairly dealt with. He started the mine about five years ago, and continued to work it until, aided by the favourable reports of competent practical men, he succeeded in forming a company, under whose auspices the mine went to work, under his local management, and agreeably with his plan, as extended by the agents who were called in, matters continued favourable; but at the expiration of about three months a deputation was sent down from London to talk the affairs over, and, if possible, to ascertain why the riches were not brought to light which had been promised; the deputation got dissatisfied, and would no longer listen to the reports, consequently had an interview with a gentleman well known about the neighbourhood of Whitford, who introduced to them the "Welsh Agent," who decidedly condemned the mine—when, as it now appears, within 2 ft. 4 in. of a course of ore, worth something like 50l. per fm. for lead. This inspection, however, led to much ado. Mr. Turton was immediately discharged, and his under agent placed in his stead. This was not all; they refused to pay him his wages unless he gave a receipt, and having no further claim against the company, which would throw him out of his own tenth, as well as his salary, &c. Mr. Turton, after this conduct, wrote to his several co-adventurers, and received very gratifying replies. One says, "We shall have to fall back on our plans yet. Had our visit been a fortnight later, the revealed facts would have silenced us, and all that with which we found fault would have disappeared like the mountain mist." Now, however, the writer of this, as well as others concerned, decline answering any communication which may be addressed to them by Mr. Turton. After the Welsh agent's inspection, the company offered the mine for the money they had laid out—3000 to 3500. Does this speak favourably of the report? Mr. Turton writes, offering them the 3500, and was prepared to offer further; but, too soon for poor Turton, the lode pushed forth its "treasure."—A. FRANK: *Holywell.*

**SUBSCRIBERS IN AMERICA.**—Our friends in America are informed that they can obtain the *Mining Journal* by ordering it from a bookseller in any of the principal towns in the United States, or by sending the price to Mr. T. B. Spencer, who is the London agent, and sends parcels by every mail to the principal booksellers and news agents there.

\* The MINING JOURNAL can be procured at our office by Eleven o'clock on Saturday morning. Newsmen, therefore, can make the necessary arrangements to have the Journal at the several stations in time to forward by the mid-day trains, enabling many of our subscribers to receive their copies on the day of publication.

# THE MINING JOURNAL

## Railway and Commercial Gazette.

LONDON, JULY 3, 1858.

The following are the particulars of the Sales of Copper Ore for the quarter ending June, 1858:—

	Tons.	Amount.
Cornwall and Devon, at the Cornwall Ticketings .....	46,923	£261,588 1 6
Foreign, Irish, and elsewhere, at Swansea .....	12,120	148,632 1 0
Total for the quarter .....	59,043	£410,220 2 6

The Sales of Copper Ore at the Cornwall Ticketings, during the quarter ending June, 1858, were as follows:—

Date.	Av. stand.	Produce.	Price.	Tons ore.	Fine cop.	Amount.
April 1.....	£133 12	6 1/2	£6 5 6	3604	244 2	£22,703 9 0
" 8.....	131 15	6 1/2	5 17 6	4916	322 11	28,981 1 6
" 22.....	130 0	6 1/2	5 5 0	4558	281 10	24,067 6 6
" 29.....	126 11	6 1/2	5 3 0	3149	197 7	16,318 6 6
May 6.....	130 12	6 1/2	6 0 0	3519	235 18	21,128 2 0
" 13.....	135 1	6 1/2	6 0 6	4281	278 3	25,797 8 0
" 20.....	139 9	5 3/4	5 5 6	3855	279 7	25,604 0 0
" 27.....	134 8	6 1/2	6 3 0	2961	196 7	18,280 14 6
June 3.....	134 5	6 1/2	5 9 0	3411	308 10	18,612 7 0
" 10.....	128 17	6 1/2	5 11 6	4461	288 6	24,879 7 0
" 17.....	129 9	6 1/2	4 14 0	4746	270 11	21,967 12 6
" 24.....	125 5	6 1/2	5 7 6	2472	160 1	13,218 7 0

Total sales for the quarter .....	46,923	2962 13	£261,588 1 6
Doitto, ending March .....	45,298	2960 1	281,841 7 0
Doitto, ending December, 1857 .....	45,395	2899 19	252,517 4 6
Doitto, ending September, 1857 .....	45,676	2941 11	287,782 8 6
Total for the year .....	183,292	11764 4	£1,083,728 18 6
Showing a quarterly average of .....	45,823	2941 1	279,932 4 6
Corresponding quarter, June, 1857 .....	50,972	3188 7	311,847 2 6

The quarter just ended shows a small increase in the tonnage of ore over those of the three preceding quarters, but a considerable decrease both in tonnage of ore and fine copper, compared with the corresponding quarter of 1857, and in money a decrease of 50,259l. 1s. On April 8, 1858, 6 1/2 produce sold at 5l. 17s. 6d.; on May 13, 6 1/2 produce sold at 6l. 0s. 6d.; on June 10, 6 1/2 produce sold at 5l. 11s. 6d.; on June 24, 6 1/2 produce sold at 5l. 7s. 6d. The sales of ore on April 1 and 8 of the late quarter were 8520 tons, whilst those for sale on July 1 and 8 of the present quarter are 7362 tons, showing a decrease of no less than 1158 tons in one fortnight.

The Sales of Copper Ore at the Swansea Ticketings, during the quarter ending June, 1858, were as follows:—

Date.	Standard.	Produce.	Tons.	Amount.
April 6.....	£116 10	12 5-16	1310	£15,931 16 4
" 13.....	111 1 0	16 7-16	1481	23,706 12 6
" 27.....	110 1 0	14 1/2	2063	25,783 8 0
May 11.....	111 13 0	13 5-16	1698	20,169 18 0
" 25.....	116 7 0	12 7-16	2116	25,750 7 6
June 8.....	114 18 6	10 1-16	1719	16,077 17 4
" 22.....	112 6 0	11 1/4	1844	19,222 0 0

Total for the quarter .....	12,120	£148,632 1 0
Doitto ending March .....	6238	122,563 18 6
Doitto ending December, 1857 .....	6,842	98,144 2 6
Doitto ending September, 1857 .....	11,780	172,852 17 0
Total for the year .....	36,689	£333,192 14 0
Showing a quarterly average of .....	9,172	133,298 3 6
Corresponding quarter, June, 1857 .....	9,350	143,702 5 0

The quarter just ended shows an increased quantity of ore over the preceding quarters of the year, as well as the corresponding quarter of 1857, though a less amount of money compared with end September last of no less than 24,220l. 16s. The sale on April 6 consisted of only 1310 tons, whilst the ore for sale on July 6 (next Tuesday) is 2605 tons:—Cobre, 506; Cuba, 436; Wancarenooka, 157; Pary's, 254; Huella, 193; Tharsis, 97; Namagua, 30; Springbok, 84; Regulus, 105; Ireland supplies, 543; 429 from Berehaven, and 314 from Knockmahon.

A few weeks since, we had occasion to refer to some of the gold mining associations which were formed during the years 1851 and 1852 for the purpose of working the auriferous deposits of California and Australia. At the same time we pointed out the ill success which had attended all the companies which had united for the purpose of mining for gold, and we then briefly referred to a few of the causes which had led to the disastrous results that in every instance invariably had occurred.

In our Journal of June 26, we noticed the confirmation of the gold discoveries in Vancouver's Island, British Oregon, and Washington territory, U.S., to which we had previously directed the attention of our readers. It is impossible yet, correctly, to define the large geographical area over which the precious metal is diffused. Judging from such reports as have come to hand, it appears that in several localities it is more considerably aggregated than in others; but the general bearing of all the advices appears to lead us to believe that it exists in large quantities at the various points which have hitherto been, yet necessarily but imperfectly, explored. If, however, we are to give credence to the accounts that are generally current, the new gold discoveries are equal to those which have preceded them. It would appear that numbers of miners are leaving California for Vancouver's Island, and this exodus is more particularly to be observed with regard to the British subjects, whom it seems anxious again to go under the supremacy of their own flag.

According to the limited knowledge we at present possess of these distant settlements, it appears that the climate of both British Oregon and Vancouver's Island is healthy and salubrious, with a fertile soil capable of producing all the fruits of the earth, not only in abundance but likewise profusion. We are told the trees are of larger growth than those of the old world. This we can readily believe, judging from the description of the mammoth woods of California; while the vegetables, we are informed, are of a like proportion.



considerable period before law and order were established; and even now several localities in those countries may be said to be in a chronic state of disorder. A great responsibility devolves upon those in authority who are on the spot; most probably they have, at the present period, inadequate means to cope with the difficulties to be contended with; it, therefore, becomes an imperative duty on the part of the Colonial Office to strengthen the hands of their subordinates, so that the disgraceful scenes which occurred in the other gold fields should not take place here. The Home Government cannot have the excuse that they are unprepared for such a state of things; past experience must have taught them that in times of excitement, such as we have referred to, this is but a normal condition of affairs. The charter of the Hudson's Bay Company must be modified to a great degree, and their territories pass immediately under the supreme and direct control of the British empire.

To those who are about to leave our own shores for these regions, animated with the desire of suddenly and quickly obtaining gold, in the pursuit of which so many thousands have sacrificed their lives, we would remind them of the dangers which have been encountered in Australia and California, the uncivilised state of the countries they will have to traverse, the difficulty of obtaining accommodation, and the dearth of all the necessities of life. Even now we are told that unskilled Indians are being paid wages at the rate of \$1 a day, with their meals. Dysentery and fever will be rife, while added to this will be the general insecurity of life and property, which, under the best ordered circumstances, appears to have reigned paramount at all the gold diggings.

After a time, it is not unreasonable to anticipate, as in 1851, that associations will be projected here for the purpose of exploring these new fields. Let the directors of such companies, and there were several of those defunct formed upon sound basis, not forget the dear-bought experience acquired in their Californian and Australian adventures; and, above all, let no consideration of nepotism or patronage allow them to consent to the appointment of incompetent men to superintend their affairs; no high-flown titles ought to be sought for; the men who should be the local heads of such undertakings must be persons of experience as miners, and not, as has hitherto been the case, an aggregation of incompetency and extravagance, with but a sprinkling of professional skill to counterbalance the evils and the losses which were entailed upon the British public, by placing in positions they were not capable of fulfilling a number of individuals whose principal qualifications appear to have been ignorance and assumption, combined with recklessness and obstinacy.

One word to the public: we are not addressing those who may speculate in shares, they are perfectly competent to take care of themselves; we would speak to those who desire to invest in such undertakings. Let them embark in no association where the directors are not men of high character and standing, the superintendents of practical knowledge, and where publicity is given to the proceedings of the company. We do not mean to say that in every instance these conditions observed will ensure success; but this we are convinced of, they will give great security, and tend to prevent many errors and mistakes, which are only discovered when it is too late to remedy them, and by so doing timely avoid evils which experience has proved, in several instances, have ruined properties and impoverished the shareholders.

It may be said that our remarks at the present are premature; possibly they may be so to a certain extent; we remember, however, how the accounts arrived to hand from the now old gold fields, and the great rush that on a sudden was made from this country, as well as several of the continental states, towards them; and we have, therefore, thought it our duty to offer a few words to all whom these discoveries may probably shortly concern. We have not, "Cassandra" like, made any dire prophecy, our aim has merely been to point out the present phase of affairs, and to afford to our readers a gentle caution as to what may soon occur. If our notice be not productive of good, we have the conviction it will be of evil to none.

In another column we publish the report of Mr. WASHINGTON W. SMYTH upon the result of the examination at the BRISTOL MINING SCHOOL, from which it appears that the progress of the students has been most satisfactory. Twelve students have been in regular attendance at the classes, and were tested by their replies in writing to questions in geology and mineralogy, on the steam-engine, and on the arts of mining, as well as by *præcæ* examinations on the same day. Mr. SMYTH appends to his report a list of the students in the order of their proficiency, and makes especial mention of Messrs. SHERRBORNE and WILLIAMS for their general acquirements, and of Messrs. BRAIN and SMALLCOMBE, for their success in their map and section.

The great success which has attended the Bristol Mining School, compared with other institutions having for their object the education of the miner, must be admitted; and we think this happy result may in a great measure be attributed to the untiring energy of Mr. HANDEL COSSHAM, and the gentlemen who have so ably co-operated with him as promoters. They have from the establishment of the school relied upon themselves, and have not looked forward to any assistance from the Government; consequently they have always been desirous to make the school attractive, by showing that the benefits accruing are really worthy of consideration to the students and the mine owners, instead of endeavouring to satisfy the Government that it is necessary for miners occupying higher positions in the management of mines to be possessed of classical knowledge, and thus obtaining Government support for carrying out a scheme comparatively valueless. Were we to ask those connected with education what they would think of a proposal to appoint a professor of Latin or Greek at the School of Mines, Jernyn-street, we are satisfied that the proposition would be ridiculed; yet there can be no doubt that it would be more reasonable to teach classics in the London than in a local school, as the students would be of an entirely different class.

Considering the amount of knowledge usually possessed by working miners at the age when they are likely to avail themselves of the instruction offered them in mining schools, it can scarcely be hoped that institutions constituted and managed like colleges can succeed.

The importance of making workmen generally better acquainted with the sciences bearing more directly upon the occupations in which they are engaged is no doubt great; but it is questionable whether minute theoretical instruction would be desirable; as it is an acknowledged fact that the highly educated man will not undertake heavy manual labour. The Bristol Mining School has kept this fact well in view, and the result is satisfactory in the highest degree—the miners are raised above the position of mere machines, but not furnished with that refined knowledge which, from their position not requiring it, might prove injurious even to themselves. We heartily wish the Bristol School a continuation of the success which has hitherto attended it, and are convinced the publication of students' names, in the order of their proficiency, will materially aid in securing it.

On a former occasion we alluded to the proposed constitution of a fishing company on the north coast of England, and in our last Journal, repeated in the present, we gave insertion to an abstract of the prospectus, under the denomination of THE LONDON AND NORTH SEA-FISHING COMPANY, with a capital of 100,000.

Considerable negotiation has been going on by parties interested in various localities to secure their district as the point of operation, and hence some little delay occurred in launching the project. It has now been determined that Lynn is to be the port; and in coming to this decision the directors have studiously kept in view the interests of the general public, as well as those who may invest capital in the undertaking. Already, we hear, a considerable amount of shares have been taken, and that there is not the slightest doubt but that the necessary funds will be promptly secured. Indeed, from the manner in which the association is brought before the public, the result cannot fail to be favourable. It is promoted by practical men connected with Billingsgate, who bring into it a fleet of about 40 vessels, so that operations commence *instantly*, and it is supported by the East Anglian and Eastern Counties Railways, besides the inhabitants of Lynn, as a matter of course, so that it seems difficult to understand how any fear can be apprehended as to the procurement of the entire capital.

The object of the company is one which interests the general public in no inconsiderable degree, and is a point which has been looked to for years as susceptible of vast improvement; but projects for carrying out amelioration have not been fully matured before being introduced, and have fallen to the ground in consequence. Necessarily much opposition is given to all departures from the usual course of action by those who delight, or rather have an interest, in trudging along the old beaten way; but starting, as this company does, with an efficient staff of vessels, no delay will occur in bringing all their plans into full bearing. The introduction of so many persons into the town of Lynn will give a great impetus to the general advancement of that port, and when there is a fleet of 100

vessels, having six or seven hands in each, the increase of population will be considerable, and the money spent by these men and their families must tell materially on the trade of the town. It is, therefore, essentially important to Lynn that this enterprise should be encouraged and supported to the utmost; while it is also of moment to the railways named, for we learn that the traffic which will be brought over the lines will give a return of about 4000 per week, which, considering it is altogether extra business, or at least such business as was not in any way calculated upon, will assist greatly in providing good dividends for the shareholders of these railway companies. Altogether, there are so many different interests identified with the success of the London and North Sea Fishery, that nothing but gross mismanagement can render it abortive.

No task is more difficult than to place a complicated and extensive interest, like that of mining, together with its true status, before the public in a brief yet comprehensive manner. It is generally only to be accomplished by labourious endeavour and tedious detail; the ramifications are so numerous as to render such elaboration necessary, particularly so in the subject to be dwelt upon, where prejudice has to be overcome. We are led to these remarks by perusing the thoroughly practical, interesting, and valuable speech of Mr. S. HIGGS, of Penzance, delivered at the agricultural meeting in that town. He said:—

From the earliest years that he had entered into commercial life he felt that mining was a legitimate occupation. He had adopted it as a business, and continued to carry it out. He had never had occasion to regret his adventures in mining; he had carried them out on the true principles of commercial pursuit, and he did not know any occupation a man could follow more legitimate in its results than mining. Whatever was gained from the bowels of the earth added so much to the commonwealth. They might raise tin at 90s. a tin, and sell it at 70s.; still some parties were benefited. They might raise copper that cost 120s., and be compelled to sell it for 100s.; still some parties were benefited, and in the end they might raise it for 100s., and sell it for 120s., and then they got their profit. On the whole, he thought mining in that neighbourhood was a fair speculation, answering the purpose of the commercial man. At the present time there was more satisfaction in conducting mines than there was twelve months ago. Some twelve months ago they had very great difficulty in meeting the miners in that neighbourhood. The miners twelve months ago almost took possession of the mines; the managers of the mines were almost thrown overboard. But a change has come round, and the miners see it is their interest to fall in with the views of the managers, and they are now working and doing from 30 to 50 per cent. more labour than they were twelve months ago; but for that our mines could not exist. The miners seem to have taken a hint from the industry of the immediate neighbourhood by which they were surrounded. There are, perhaps, 1000 acres under cultivation in the neighbourhood, which employ no less than from 500 to 600 people, who work from 12 to 16 hours a day, and that accounts for the great produce of the acreage. The cultivation of this neighbourhood costs, perhaps, from 20s. to 25s. per acre. The produce is good, and the producers' bread earned by his manual labour, and I think that our miners have taken a hint in some measure from these individuals. Six hours a day used to be considered by the miners quite sufficient for their labour; but now they are content to work eight to ten hours, and it is from this change that mining is likely to be more satisfactory to adventurers.

Now, here is a plain, sensible elucidation of mining, from one who has practised it for 30 years. We know, from our own experience, that Mr. HIGGS, during the first probationary period of his mining, only raised tin at 90s. and sold it at 70s. in several of the mines with which he was associated. We know also that at the period of Mr. HIGGS's entrance into mining copper was about 95s., but he had resolution—he knew well the article he was dealing with, and by the exercise of that knowledge he has prospered. How different his mode of action from that of a testy adventurer, who buys indiscriminately into a mine, and the moment he finds it not to pay as he supposed, or as it had been represented to him, turns round upon mining, and designates miners as a set of swindlers. But mines are substantial, and not to be destroyed by indignant misrepresentation. Whilst such men as Mr. HIGGS stand up and speak the truth, there need be no fear for mining.

It is satisfactory for us to know that the attention we have given from time to time to the great mineral resources of which Ireland is possessed has not been without its profitable effect, and that our remarks, finding their way to various classes of readers through influential local organs, are likely to produce the beneficial results we so much desire. The *Cork Examiner*, in quoting from our columns, and remarking thereon, says:—

It is true large sums of money have been raised at various times and by several parties in Ireland for mining purposes; but there has, unfortunately, been so much extravagance and dishonesty mixed up with the transactions, that but a small sum, comparatively, has been actually expended in working the mines. In such cases they are better abandoned to more honest adventurers. Unfortunately, such transactions have thrown some discredit upon mining, but there can be no doubt that honest mining, if carefully and cautiously conducted, might become a most legitimate and profitable investment, and would be a most desirable mode of developing the hidden wealth of this country. That vast mineral resources lie awaiting discovery is a fact so frequently borne testimony to as to need no reiteration; and that, on the other hand, abundance of unemployed capital exists in this country is sufficiently attested by the surprising returns of the Encumbered Estates Court. To bring that capital to bear upon the soil, and draw from the bosom of the earth those treasures which scientific men inform us lie in vast quantities throughout the mountain regions of this country, would be the source of benefits so great and so varied as to be, without exaggeration, incalculable. We think, therefore, men of capital and means anxious to improve the condition of this country, ought to turn their attention earnestly to this subject, both as a means of multiplying their wealth and diffusing valuable employment throughout the country.

A point of great moment for the satisfactory progress of mining in Ireland is the necessity of Government inspection. This, of course, applies more particularly to some branches of mining industry; but it is so identified with the matter in the broad sense, that it is not inapplicable to allude to it here. Papers on the subject are in course of publication in our columns, and we recommend them to the perusal of our readers. It is most essential that every precaution should be exercised where the lives of so many human beings are dependent on others; and undoubtedly it is the duty of the Government to provide all necessary laws for the protection of all parties. Inspectors are appointed in England according to an Act of Parliament; but, strange to say, this enactment specially excludes the sister country, and says, "this Act shall not extend to Ireland;" in fact, there is a total absence of legislative provisions for Ireland in respect to her mines, and those who will may adopt whatever plan that may seem best, without proper consideration for the safety against death or accident of those they employ. Great mortality results, no doubt, from foul or stagnant air, and many other causes which are in the power of the employers either to modify or totally remove, and official supervision in this respect should be enforced by the Government. However, the question is now mooted, and we make these remarks more to draw attention to it than to enter into details, which we defer for another occasion.

The PORT PHILLIP AND COLONIAL GOLD COMPANY held a meeting on Tuesday, which will be found detailed in another column. The object was to give a statement of the present position of the company's affairs, from which it is satisfactory to find that there is every prospect of the shareholders eventually obtaining a return of the capital—in fact, this is the only gold mining company formed during the rage for these speculations, in 1852, that has survived, and now appears likely to realise the anticipations of its promoters. It will be seen that, through the perseverance of Mr. BLAND, to whom praise is rendered by the home management, the quartz crushing business has got into full working operation, and the calculations that he gave from time to time may be said to be fully verified. He sent word home, whilst the machinery was in course of erection, that when finished he should be in a position to crush 50 tons per diem [he has done regularly 48 tons], that the expense would be 30s. per ton, and that he would obtain 3s. This estimate has proved over the mark, as, notwithstanding many repairs and additions to the machinery, the total expense has not exceeded 29s. per ton; and the shareholders have the satisfaction of being informed that it is not an experiment, but a steady business carried on for months. In Jan., 1003 tons were crushed; in Feb., 923; and in March, 1284 tons, for which the Port Phillip Company received 8481s., whilst the yield of gold is calculated to give an ample profit to the parties supplying the quartz.

No stronger testimony of the excellent manner in which the works have been erected can be given than the report of Mr. SELWYN, the Government geologist, wholly unconnected with the company, who says:—"I carefully examined the crushing and amalgamating works, and was much pleased with the whole of the arrangements, which are well calculated to secure economy and efficiency, and are equal to those of any establishment of the kind I have seen in Europe. Within the last twelve months I have visited all the principal quartz reefs and crushing establishments on the northern and western gold fields, and the Port Phillip and Colonial and Clunes Company's mine is the only one I have seen of which it would be possible to say that it leaves little to be desired, either as regards the system of working the mines or the general arrangements and management of the machinery. It will doubtless, if carefully conducted, prove a highly remunerative investment for many years. Upon this report the directors observe, 'that testimony of such a character, coming from such a source, has been very acceptable to them, and affords abundant proof of the ability, sagacity, and perseverance with which Mr. BLAND has conducted the operations, in the midst of great difficulties.' It is to be hoped,

with such prospects, attacks on the executive may now be dropped; and, as a Proprietor observed, when the legality of the loan was questioned, which is believed to have been the saving of the company, that if the raising of it was not thoroughly legal, it was certainly good policy.

Notwithstanding the heavy shipments of specie which have recently been made to France, and other continental countries, as well as for India and China, the general balance of imports over exports of gold and silver is greatly in favour of England. The total declared amount of the precious metals which were sent from our ports during the five months ending May 31 was 8,728,246s., of which 5,124,167s. was gold, and 3,604,079s. silver. Against these items there was imported, during the same period, a total amount of 14,703,214s., consisting of 11,459,509s. in gold, and 3,243,705s. in silver; consequently there is an aggregate excess of imports over exports of 5,974,968s.; gold giving an increase of 6,335,342s., and silver a decrease of 360,374s., so that the balance was 5,974,968s., as already stated. The greatest shipments of gold were to France, which took no less than 4,414,971s. during the five months, and only 190,889s. in silver, against which our allies transmitted 417,375s. in gold to us, and 1,064,819s. in silver, so that 3,123,666s. was the balance against this country in our specie transactions with France. There was interchange with eight different countries—Hans Towns, Holland, Belgium, France, Portugal, Spain, Egypt, in transit to and from India and China, and the United States. The imports thence gave collectively a total of 6,109,238s., but the aggregate exports to those places amounting to 8,348,383s., it necessarily follows that 2,239,145s. was the balance against England. We exported to five places the sum of 379,863s., from which we received no specie in return; but nine countries transmitted to us a collective total of 8,593,970s., without any of the precious metals being sent forward to them from us: so that, in respect of these 14 places, the balance was in our favour to the amount of 8,214,113s. From Australia the imports amounted to 3,813,115s., and from Mexico 3,691,554s., being together 7,504,669s., without any specie being returned by us.

The amount of gold and silver bullion and specie received during the month of May was 2,888,250s., and the exports having been 2,229,232s., there was a balance of 659,018s. in favour of this country during the month.

IMPROVEMENTS IN STEEL MANUFACTURE.—We have upon several occasions referred to the improvements in the manufacture of steel introduced by Mr. T. W. Dodds, of the Holmes Works, near Rotherham. We yesterday received several specimens of cast and blister steel and pieces of iron more or less converted; and also an 8-in. hand, smooth-cut file, which appears to be of very good quality. By Mr. Dodds' process, a piece of bar-iron may be turned into a finished file in 80 minutes. The piece of iron to be operated upon is cut from the bar, forged, ground out, and then converted into steel. As a substitute for cast-steel, Dodds' metal is produced more quickly and more cheaply; it can, likewise, be made to combine the hardness of steel with the tensile properties of bar-iron, not only unimpaired, but increased. The commercial advantages are a saving of 50 per cent. in fuel, and a much greater economy of time, without any deterioration of quality. In our next Journal we shall refer more fully to the manufacture of steel, and also the application of the patent process of partial conversion to rails, points, crossings, and tyres of wheels, with the saving effected by so doing; the conversion of iron plates for ship-building, boilers, tubes, ferrules, safes, &c.; the application to machinery, the manufacture of files and other tools now made of steel.

FOREST OF DEAN MINERAL CUSTOMS.—A memorial has been presented to the Commissioners of Woods and Forests by the colliery proprietors of the Forest of Dean, with reference to the mineral customs of that locality; and in the House of Commons, on Monday, Col. Kingscote enquired whether a decision which had been given thereon was founded on the opinion of the law officers of the Crown; and if not, whether there would be any objection to take their opinion? Mr. Hamilton said that it had not been founded upon the decision of the law officers of the Crown, for it appeared that the right to open mines was so clear that there was no necessity to take the opinion of the law officers. Mr. Howard had informed the parties that he would afford every facility to those who took leave. In our next we shall refer more particularly to this matter.

MINING IN RUSSIA.—The immense mineral wealth of Russia is at last to be turned to good account, the Emperor of Russia having determined that a revision of the Mining Code shall form part of the general measure for reform which he proposes to introduce into his empire. The step will be one of much importance both to the Emperor and his people, and will raise the country considerably in an industrial point of view. He intends to give up to private companies the whole of the mines which have hitherto been in the hands of Government, and to offer many facilities to those undertaking to develop them. Although the capabilities of the mines are ample to return a large revenue, they have up to this time been comparatively valueless in the hands of the State, owing to the irregularities and abuses allowed to exist.

MINING IN ALGERIA.—The first step towards the development of the mineral resources of Algeria has been made by M. Talabot, whose name is well known in France from his connection with industrial enterprise. He is the *concessionaire* of some valuable mineral property near Bona, and about four miles from the Seybouse, and has constructed a railway from the mines to the river. The first locomotive ever seen in Algeria, and which is to run on this railway, has recently been landed at Bona, whence M. Talabot took it in a vessel furnished with a peculiar apparatus for cutting its way through the sand which obstructs the mouth of the river: the apparatus was fully successful.

THE TORBANE HILL MINERAL CASE IN CANADA.—It seems that the discovery of the so-called coal in Canada is likely to lead to as great a dispute as the celebrated Torbane Hill mineral did in Scotland. The mineral found at Bowmanville has been experimented upon by Prof. Chapman, of the Toronto University, and although he was at first inclined to dispute the importance of the discovery, he now admits that if the substance—he will not call it coal—is obtainable in any quantity its value will be very considerable. The local press declare that "there is no humbug in the matter," and that the article brought up by the borers' instrument is veritable coal. It matters little, however, what the scientific name of the mineral is, as it is admitted to be a substance of great commercial value, and that there is abundance of it, and no doubt plenty will be found ready to explore. It seems that the worst the orthodox geologists can say against it is that it is bituminous shale, and when we consider the many useful and valuable products obtained from that substance we see no reason to despise it. There can be no doubt that a 6-ft. seam of even moderate quality bituminous shale might be turned to good account, and should the Canadian coal be found anything like the Torbane Hill mineral, the profits which would accrue from working it would be immense.

THE MINERALS OF CANADA—"BLACK ROCK."—The Canadian Government having issued a patent to Mr. Gauvreau, as the original discoverer and manufacturer of hydraulic lime, or cement, from the black rock of Quebec, Major-General Baddeley has put forward a statement, showing that the discovery claimed by Mr. Gauvreau is due to him, Major-General Baddeley. Close attention to the physical and mineralogical characters of the black rock, while superintending professional duties in blasting it, to make way for the erection of the new citadel of Quebec, led him, in 1834, to suspect that it was convertible into a water cement. Having proved the correctness of his suppositions, he took out a patent in the same year, which patent expired in 1848. He claims the use of certain rocks largely developed at Quebec, and on which considerable portions of that metropolis are built, which rocks are there known as the "black rock," or "pierre noire." This he caused to be first broken into fragments, and then broken in a kiln until the carbonaceous matter they contain is almost entirely expelled in the form of gas. These fragments are then ground and sifted, that the product may be as nearly as possible impalpable, in which state it forms with water a true hydraulic cement, and is adapted in all respects to the purposes to which Roman, Shelly, and other similarly constituted cements are applied, including the setting and facing of stone works intended to retain or exclude water, or resist the disintegrating action of the atmosphere. Twenty years after, Mr. Gauvreau claims the same discovery with reference to "the rock on which the city of Quebec stands, commonly known as the clay-slate, or black stone of Quebec (*pierre noire du cap*). This stone is to be broken into pieces of about 6 inches cube, calcined in an ordinary kiln, ground and sifted, and in that state requires only to be mixed with water. As it can scarcely be presumed that Mr. Gauvreau intended to patent the well-known



process of manufacturing cement, we must take the application of the *pierre noire* as the invention he claims, and it appears that Major-General Baddeley's claim is not for having been the first discoverer of the mode of manufacturing cement, but for the discovery that the black rock of Quebec was convertible into a water cement, of the merit of which discovery Mr. Gauvreau's new patent cannot deprive him. The cement, as manufactured by Major-General Baddeley, was reported on in 1835 to the Inspector-General of Fortifications by Colonel (now General) Pasley. He found that it was a good hydraulic cement, but was inferior to the Sheppy cement, inasmuch as it set too slowly to be used for tide works, requiring some days exposure to air to make it hard; this Major-General Baddeley considers (as he had obtained sometimes different results himself) was owing to inferiority in the stone experimented on, or too much calcination. In conclusion, we think that Major-General Baddeley has fully proved that he is the discoverer of the hydraulic qualities in the "black rock." Prior reference to this subject appeared in the *Mining Journal* of Oct. 18, 1856.

THE MINING AND INDUSTRIAL INTERESTS OF CORNWALL.

JULY 1.—The Copper Trade is unfortunately dull, and consequently the standard has been in a declining state for some weeks. Last week the reduction was of small amount, and as the difference between the price of ore and cake copper is now slightly beyond the smelters' average, there is reason to hope that there will be no necessity for any further decline of much importance. The following figures will show the fluctuation in the prices given by the smelters for copper ore—that is, as much ore as will make a ton of fine copper—in each week during the past quarter:—

Date.	Tons.	Standard.	Produce.	Price.	Cop. ore.	Cake cop.
March 25.	3528	£135 18	65	£5 19 0	£33 0	£117 0
April 1.	3604	133 12	65	5 5 6	31 0	117 0
" 8.	4923	131 15	65	5 17 6	30 17	117 0
" 22.	4538	130 0	65	5 5 0	35 10	117 0
" 29.	3149	128 11	65	5 3 0	32 14	107 10
MAY 6.	3543	130 12	65	5 0 0	30 11	107 10
" 13.	4281	135 1	65	6 0 6	32 13	107 10
" 20.	4855	139 9	65	5 5 6	31 13	107 10
" 27.	2951	134 8	65	6 3 0	33 2	107 10
JUNE 3.	3411	134 5	65	5 9 0	30 5	107 10
" 10.	4461	128 17	65	5 11 6	36 6	107 10
" 17.	4746	129 9	65	4 14 0	31 4	107 10
" 24.	2172	125 5	65	5 7 6	32 16	107 10

Since the beginning of the quarter the standard has dropped above 114, and the price per ton of ore about 14s. On comparing the sales during the quarter we find that, on April 8, 6½ produce made 54. 17s. 6d., on May 13 it made 64. 0s. 6d., on June 10, 54. 11s. 6d., and, on June 24, 6½ produce made 54. 7s. 6d.

The Tin Trade is also reported dull, and is likely to remain so till after the sale of the Dutch tin on July 6. We shall probably not see much higher prices for tin until the American trade more decidedly revives. In the autumn of the present year an improvement may fairly be expected, and even earlier than that there will be an advance if speculators come forward, as they did last year, and purchase in anticipation of the rise.

In most cases shares in mines have a downward tendency. The exception is in a few of the most promising progressive mines. West Setons have dropped to 275 and 280, in consequence of an additional outlay being deemed necessary for machinery. Wheal Basset shares have declined; and several dividend mines now present good opportunities for capitalists, who might fairly calculate on making a large interest on their investments before the end of the year. Wheal Clifford is doing better, and made a profit on the last two months' working of 14544, thus reducing the balance against the mine to 9711. The mine is an expensive one, but very rich at some points. The 180 fm. level end (eastern mine) is producing 12 tons per fm., of 8 per cent. produce, and the stopes above the 180 are worth 80% per fm. In the other part of the mine the 208 fm. level end is worth from 50% to 60% per fm., and the water coming out at the bottom of the end is very hot. A rise in the back of this level produces 10 tons per fm. South Frances is doing well, especially in the stopes and pitches. East Basset continues to look very favourable, and the price of shares would, no doubt, rise if the times were not so dull. North Frances is reported to be looking somewhat better. West Frances has considerably tried the patience of the adventurers, but the mine has indications of good results on further development; a few shares have changed hands at comparatively low prices. West Basset has a productive end in the 84 west on the north lode, and at other points the mine is opening well. Wheal Margery shares are about 12. Pendennis is reported to be looking better. Angarrack Consols is a promising sett; now that the engine is set to work there are prospects of good results in the development of the mine's lodes. Wheal Trungle continues to look very favourable for making ore at comparatively little depth. The company is a good one, and is vigorously prosecuting the mine.

Now that Mr. Michael Williams is dead, it is found out by some persons that he was the means sometimes of keeping up the copper standard. At an agricultural meeting, at Penzance, last week, Mr. T. S. Bolitho (a large tin smelter, &c.) is reported to have said,—"Before we separate I will venture to offer a slight tribute of respect to the memory of our late Member, Mr. Michael Williams. I feel that Cornwall has sustained a great loss by the death of Mr. Williams. Probably there are but few persons who knew him so well as I did. After a close acquaintance of 35 years, I can with truth say that I feel I have lost a good friend, and that the country has lost a valuable supporter. It was not when prices were high that he was to be appreciated; for on several occasions, I can safely say, when the prices of metals were falling, that Mr. Michael Williams has always shown a disposition to stand on and hold stocks, and to do what he could to support our mines. I may say of Mr. Williams that he was to be characterized as a man of sound judgment and a kind heart."

The new candidate for the western division of the county addressed the electors at Truro last week, and has since met the constituency at Penzance, Falmouth, Redruth, and other places. He has a pleasing manner, and is evidently a man of considerable acquirements as well as natural intelligence. It is clear, also, that he has devoted much attention to political subjects; and although only 28 years of age, it is likely that he will make a useful county Member. Mr. St. Aubyn declares himself to be a decided Liberal; and as he is a ready and fluent speaker, it is not improbable that his voice will be heard in Parliament on county and other subjects. The rating of mines question does not receive that attention from the mining part of the constituency which it should have. If it be thought that there will eventually be a rating imposed, the electors should at least urge it upon the attention of Mr. St. Aubyn, that if returned to Parliament he will use every effort, individually, to render the rating as little burdensome as possible. It is stated that Mr. St. Aubyn's opinion is that the rating question has not yet been sufficiently examined into, in all its bearings, to render legislation just and effectual on such an important subject, affecting the mineral interests of the whole kingdom.

The mackerel fishery has been in progress, with more or less success, on different points of the Cornish coast. The season is now coming to a close. At St. Ives it may be considered closed. A number of the hardy fishermen have gone to the coast of Ireland to fish for herrings.

REPORT FROM YORKSHIRE, DERBYSHIRE, AND LANCASHIRE.

JULY 1.—The interim between the preliminary and quarterly meetings of the iron trade is always looked upon as a dull one, and certainly the present does not form an exception to the rule. At the preliminary meeting, the unanimous determination of the ironmasters to maintain the rates current last quarter has given general satisfaction. An attempt to alter the rates would be attended with considerable difficulty, as it would cause an alteration in the rate of labour. At all events, it will give a firmness to the trade, as numbers of orders were held in abeyance, under the impression that prices would be reduced. The quotations are—Bars, 9s.; hoops, 9s.; sheets and plates, 9l. 10s. per ton. Best hot-blast pig-iron, 3l. 15s. The demand for foreign consumption is improving, but the home trade is limited to immediate requirements. The failure of Messrs. Young, the extensive ironfounders and contractors, has occasioned considerable consternation. Their liabilities are very large, and they owe the Edinburgh and Glasgow Bank 180,000l. The Coal Trade does not present any alteration. There is not much to notice in lead mining operations in Derbyshire, though the different enterprises are being pushed forward without delay. The North Derbyshire Company are erecting a very formidable building for their new engine, and the place is all bustle and activity. The Mill Dam Company are making good progress with their new shaft. The workings at the Robin Hood Mine, at Matlock, have improved. The New Midland have set the work on cope, at a good profit. The mining share market is very much depressed. Exports are quoted at 40, and the price of shares in the rest of the mines are lower, which arises from the depression of trade in general. The late accident near the Chesterfield station will prove more disastrous than was first anticipated. The engine-driver is not expected to recover. The adjourned inquest on the body of the stoker was held on Monday, when the general tenor of the evidence

showed that the fireman of the plate-overs had stationed a signal-man in advance to stop all approaching trains; and it would seem to be a mystery whether he exhibited his flag; and if so, whether the engine-driver perceived it.

Mr. Barrow, the extensive coal and iron master, whose works are situated at Stavely, has made the most ample arrangements for the conveyance of such of his workmen who reside at Chesterfield, which is about 3½ miles distant. He has arranged to provide his own engine and carriages, and to convey them, morning and evening, from Chesterfield station to the works, at 6d. per head weekly, or 1s. 4d. per journey. This is certainly an accommodation which the workmen ought to appreciate.

An inquest was held on Tuesday on the body of James Baggeley, a miner, 35 years of age, who died from injuries he received by an explosion of powder. The deceased was engaged in ramming powder in a hole to push some dirt down, when the powder became ignited, and he was knocked down and mortally injured by the explosion. It is believed the accident happened by a spark from the hammer igniting the powder. The jury returned a verdict of "Accidental Death." There were no printed rules at the pit for the guidance of the men.

James Heath, a boy 14 years of age, was killed on Saturday at the Four-foot Mine, Haydock, having been knocked down by a wagon.

On Monday morning an accident occurred at Messrs. Knowles and Stott's Stonechapel Colliery, Kersley, whereby a boy was killed and another injured. Mr. Dickinson, the Government Inspector, was present, and closely questioned the witnesses. It appears that there was a chain on the side of the shaft connected with the engine, used for winding coals up the down brow. This chain went within two or three yards of the bottom of the shaft, where it ran under a pulley into the down brow. There was an iron guard used for the purpose of keeping the chain in its position on the pulley, and it appears that this guard had on some previous occasion been carried away by the chain up the shaft. The view of the case of the accident, and it was supposed that it had reached the mouth of the tunnel leading to the engine, about seven or eight yards from the top of the shaft, and becoming entangled, was the cause of the brickwork falling down the shaft. Mr. Dickinson considered there was blame attaching to some one, inasmuch as the iron guard had been frequently carried up the shaft before. The jury, however, returned a verdict of "Accidental Death," believing that the boy had in the excitement of the moment fallen out at the open side of the cage.

THE IRON AND METAL TRADES OF STAFFORDSHIRE.

JULY 2.—The week before quarter-day is usually quiet, and this week especially so. Both in the iron and mineral trades, and in the general hardware trades, general slackness is the rule almost without exception. The season is past for orders for autumn delivery in the United States, but should there appear a prospect of a heavy spring trade, orders might be given in anticipation, with the impression that higher prices would then prevail.

The Wolverhampton Chamber of Commerce has taken into its consideration the judgment delivered some time ago by the Bankruptcy Commissioner at Birmingham in the case of Messrs. Brayford and Lancaster, and which at the time was criticised in this paper as giving judicial sanction to that system of gambling speculation which has so seriously affected the mercantile interests of this district. The Chamber of Commerce take the same view, and after rehearsing the various unfavourable features of the case, which the assignees presented as grounds for the issue of the certificate being suspended, conclude by saying—"That under the circumstances, the decision of the Commissioner, awarding a second-class certificate to the bankrupts, who were strongly opposed by both assignees and creditors, appears to this Chamber to give a sanction to practices opposed to the principles of sound and legitimate trading, and seems likely to increase the distrust already so generally felt in the administration of the Bankruptcy Laws." The Chamber have resolved approving the proposed Bankruptcy Law Consolidation Bill, which has recently been brought into Parliament by Lord John Russell, and which emanated from a sub-committee of the Social Science Association, and have adopted petitions to Parliament in its favour. The Chamber has done good service to the public, especially to people in business, by a concession which they have obtained from the London and North-Western and the Great Western Railway Companies. They reported through their president, Mr. E. Perry, that whilst day tickets for short distances were a convenience to the public, and advantageous to the companies, by inducing people to travel, that for such a journey as from Wolverhampton to London they were inapplicable, it being almost impossible to go to London, do business, and return on the same day; and they urged that for the journey to London return tickets should be made available for two days. After a good deal of correspondence, the directors of the two companies have been convinced of the desirability of the concession, and have granted it.

An inquest was held in the Potteries a few days ago, to enquire into the deaths of Robert Parry and Richard Hannaway, who were killed by an explosion of fire-damp in one of Earl Grangeville's coal pits on June 14. The evidence of one of the men who escaped with his life was to the effect that he and three others received their lamps on the morning of the accident at the lamp office, but had not been at work more than four or five minutes before the explosion took place. He himself was nearly suffocated by the gas, but contrived to escape. The deceased, however, together with Hugh Roberts and Evan Jones, were badly burnt. He could not speak positively as to the cause of the explosion, but he believed it arose from Robert's lamp not having been properly screwed up. Robert's lamp was produced before the jury in the condition in which it was found after the explosion. That portion which occupies the space between the gauze and the bottom of the lamp, and which immediately encircles the flame, was found to be quite loose, and entirely useless, in its then state, as a means of cutting off the communication between the air in the inside and that on the outside of the lamp. The corner said that the unscrewing of lamps of that description by the men themselves was a work of little difficulty, and described a patent lamp which he had in his possession, and which was so constructed as to render it impossible for the miner to open it after he had received it from the office. The inquest was ultimately adjourned, in consequence of Roberts being too ill to attend.

Four colliers working in a pit near Bilston, belonging to Messrs. Hickman, had an extraordinary escape from death one night last week. The pit is supplied with air by its being forced into it by a steam-engine down the shaft. During the night the engine stopped, and the men almost immediately began to feel the effect of a want of air, whilst the stoppage of the engine also cut off their only means of escape. They rattled the pit chain and used every available means to rouse the engineer in vain. One of them became insensible, and the others were resigning themselves to death. Happily, however, the watchman came round, discovered the engine asleep and roused him. The engine was started, and the three men who had not yet succumbed to the influence of the noxious atmosphere placed their insensible companion in the skip and ascended with him. The unconscious man was restored, and the lives of all fortunately saved. On Friday, August Green, the engineer, was brought before Edwd. Boat and J. N. Bagnall, Esqrs., charged with neglecting his duty, and on the evidence of the watchman and the colliers, was sentenced to two months' imprisonment.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

JULY 1.—There is more activity generally this than last week, owing to several orders having been received. The iron trade, though not brisk, is steadily improving, and at Tredegar a good amount of business is being done. At Rhymney, also, the works are fairly employed. In the Aberdare Valley some little slackness is prevalent, but there is a change for the better as compared with a few months ago. The Monmouthshire makers are not very full of orders, though at certain works there is no complaint of great depression. The iron trade is very dull; the demand for coal remains about the same. The remarks we made last week respecting the frequency of boiler explosions derive a fresh significance from a lamentable incident which occurred near Blaenau on Tuesday. On the morning of that day two men were seated on the safety-valve of one of the boilers, just below the coke ovens at Victoria, playing idly with the steam. They were apparently without a thought of the danger of their position, and continued their amusement for some time with singular carelessness; suddenly, however, the boiler burst, and the men were forced to a height of 60 yards, when they fell on the side of the hill, dreadfully mangled and wounded. A third man, Thomas Price, an engine-driver, who is supposed to have been on the lever of the valve, was killed, and a fourth was so injured that he only lived a few hours. Three others are most seriously injured, and it is supposed that one at least of them cannot recover. These form only a portion of the persons who have suffered by the catastrophe. The boiler was in a sound state, and was 30 feet long, the tube was 3½ feet in diameter, and at the time of the accident was working at a pressure of 60 lbs. to the inch. The conduct of the fireman, and engine driver, the two men who sat on the valve, at the time of the accident, and the miserable men have not only paid the penalty of their rashness, but involved others in their destruction.

The resumption of the Coalbrook Dale Works, near Nant-y-Glo, Monmouthshire, is, we believe, finally determined upon by the proprietors, Messrs. Crutwell and Levick. The works have been at a standstill for some three or four years, it being generally understood that they were "worked out." It appears, however, that such is not the case. The buildings have fallen into considerable decay, grass has here and there made its appearance, and pretty thickly too. It is anticipated that some 1000l. or 1500l. will be expended before operations can be resumed, which will be confined solely to casting. The High Def. of the Colliery, which has been announced to be again demonstrated, and has, therefore, a right to claim a ready and deliberate attention on the part of the class to whom he appeals. Progress ought to be very marked in our iron-works, and, as in agricultural affairs, the man who is content to travel in old ruts, or at best merely to make them a little wider or deeper, must expect to be left behind by more active competitors. To all smelters who wish to know how imperfect is the *modus operandi* generally of the manufacture of iron and steel, we would recommend a careful perusal of Mr. Rogers's work, and they are certain to derive much important information from it. If they were wise enough to follow some portions of his instructions, there would be no necessity for such censures as the following, which at present is only too well deserved:—"They [the ironmasters] seem to care but little about the quality of their general results (except at times when imperfect products happen to be returned upon their hands), so that they can drive great quantities of them into the market. Such a system has, no doubt, enabled many iron-making firms to realise immense fortunes; but at what sacrifice? heating down the fair and equitable market price of good iron by tempting, with low prices, consumers and exporters to buy inferior sorts, which are often actually dear

at any price." We hope soon to see more judicious conduct pursued throughout the district, from the most important firm to the most insignificant.

SWANSEA, JUNE 30.—After reading your several reports in the *Mining Journal* respecting the mines near Llantrisant, I resolved, in company with a friend, to take an early opportunity of visiting them. On our arrival at the Llantrisant Railway Station, the station-master called our attention to some very rich samples of iron ore upon his window-sill, about ½ cwt., which he said had been analysed and found to contain about 75 per cent. of fine iron. We were then directed to the men loading trucks with iron ore of the same description on a siding, to which place it is delivered in carts from the quarry where it is raised. From this place we followed the empty carts, and in about half an hour reached their loading place, which belongs to Messrs. Williams and Evans, who rent it at a royalty under the Marquis of Bute. We found the men at work in a very large open pit or quarry, loading large trucks with mine, which was drawn up an incline railway by a stationary engine at the top. The foreman of the works pointed out places from which the mine had been taken by the old men, ages ago, and, singular to say, a wooden wagon of Mr. Vaughan, of Rheola, near Neath. We next visited Mr. Vaughan's mine, which is a continuation of the same deposit, the two estates being divided by the turnpike-road. Here we found a large open quarry, as at the other place, with a stationary engine, to pump water and draw the mine up to the carts. In both these places the mine is raised at a very low cost per ton, the principal cost we considered must be in carting it so far to the station. On enquiry, we were informed that the mine did not prove to the east of Mr. Vaughan's property, and to the west of Messrs. Evans and Williams. Gentlemen from Newport &c. expended a large sum in search of iron mine, but have not found any. These two mines are exceedingly fine, and if worked with energy any quantity of ore may be produced; and should a branch rail from the new Ely Railway, which is just starting, be taken to them, no doubt a much larger quantity will be brought into the market. On returning to the station, we found ourselves too late for the train by which we intended to return home. One of the men asked us if we had visited the Llanharry Iron Mine, which he said was about a mile distant, and on being informed we had not seen it, offered his services to conduct us to the nearest road. We at once started with our guide, and very soon arrived at a point where three lanes meet, at the back of a farm-house called Lacha; here the iron mine is found in great abundance. We were then taken from field to field for about a mile, all the iron mine up to our feet all the way; this is what the station-master called a "main" of iron. It is here in inexhaustible abundance. Near the village of Llanharry we found the old men's workings, which is the best evidence of the former importance of this place for iron. When I first read your report on these mines, I considered it idle and fabulous in the extreme, and no doubt many others are disposed to think the same; but to such I would say, go and see, and if you do not return with the conviction that iron can be made 50 per cent. cheaper than at any other place in Wales, I shall be ready to declare myself a know-nothing. I have been connected with mines and iron-works all my life, and have never seen such a place. The coal is very good, and well spoken of by the workmen, as being cheap to get and free from gas. After taking circumstances into account, I quite agree with your report, when he states that iron of the best quality can be made here at 50 per cent. less than at any existing works. We again returned to the station, at which place we found a very comfortable little inn, where the hard-worked and weary visitors were cheered with refreshment, a pleasing tune on the harp, and a good account of the well on the mountain, which is said to cure all complaints but poverty. The surrounding country is very beautiful, and Mr. Mathews, at the hotel, gives a very good account of fishing in the Ely River. We returned home the same evening, well pleased with our journey, and to all interested in iron making we would say, go and see. I forgot to state that the owner of the coal mines is the lord of the manor of Llanharry, consequently he has the owner of the coal mines and the mountain of iron before alluded to. The mines are let on royalty to a gentleman from the North, whose name I omitted to write down as I made my note. Furnaces are expected to be erected this summer.

REPORT FROM NORTHUMBERLAND AND DURHAM.

JULY 1.—The Coal and Iron Trades remain in nearly the same position as last reported. In both considerably more business could be done.

The collieries of Messrs. Carr Brothers are to be brought to the hammer by Mr. Brough, on July 20—the Burradon, Seghill, Hartley, and Cowpen Collieries. The reason they have to be sold is that large advances were made upon them by the directors of the late district bank. Those collieries produce a large quantity of the best steam coal. They are to be offered in four lots, which is extremely favourable for purchasers. The plant, machinery, &c., in these collieries are of the very best description, and, generally speaking, we should say they are in very good order indeed. The means of transit for their produce to the Tyne, &c., is put into the market in this district.

The owners of the Redington Colliery have taken the Barrington Colliery of Messrs. Longridge and Co., and the two being contiguous will in future be wrought under one management—thus forming a large establishment for the production of steam coal.

The coals from the Bromhill Colliery, near Warkworth, are to be conveyed (instead of shipping of them at Warkworth Harbour) to the Hay Dock, on the Tyne. The route is by the North-Eastern Railway to Westside or Dudley Colliery, belonging to the Grantham Colliery Company, and from that point are to be conveyed on the latter company's line to the docks.

The sinking of two shafts at the North Seaton projected "winning" are being proceeded with vigorously. The work has been let to a contractor.

The owners of the Black Boy Colliery are proceeding to develop the fine coal seam won there lately; a powerful winding engine of the best construction is about completed, also cages or carriages, each to carry four tubs of 8 cwt., each, are constructed. When this seam is fully opened this engine will lift a very large quantity of coal per day. With such establishments as this the large quantity of coal produced enables the owners to compete with all others, and with such seams of coal as this at Black Boy, all that need be asked is "a fair field and no favour." This colliery, it would appear, is destined at no distant day to become one of the most flourishing in the North. The owners are about commencing to build a considerable number of additional houses for their workmen.

The Howness Gill Bridge, on the Stockton and Darlington Road, was opened on Friday. The works are finished in a most substantial manner. The design for this structure was by Messrs. T. Bouch and John Anderson, the company having paid these gentlemen a premium for the design, and the latter gentleman was the contractor for the works; too much credit cannot be given to him for the manner in which he has completed his task. He is a most active and enterprising man—one, in fact, who belongs to the school of the late George Stephenson; he had quite a similar beginning to that great man. We recollect him as an apprentice at a colliery near Gateshead, where he served an apprenticeship as a colliery engine-wright, but by his energy and perseverance he had raised himself considerably above that calling. He has been employed for many years as an engineer and contractor in making railways, docks, &c., and has been employed in many important undertakings both in England and in Scotland. The height of this viaduct is 175 feet, with 12 arches, each 50 feet span; it has been erected in 15 months, and the cost will be about 14,000l. This bridge effects an important improvement in this railway, which it must be noticed joins near this place the important ironworks of Consett, and by means of this railway the principal supply of iron ore is conveyed to the works from the Cleveland district. The Cleveland iron ore can be laid down here for about 7s. per ton, while the clay ironstone on the Consett estate costs in working about 10s. per ton. The percentage of iron in those two descriptions of ore is also in favour of that from Cleveland, as the clay stone of Consett only contains 35 per cent. of iron, while that from Cleveland contains 40 per cent.

The Carlisle, Langholme, and Hawick Railway Bill has been rejected by the House of Lords. It is scarcely necessary to remark that this news has been received with much satisfaction by the people of the North. As the question now stands, it appears that the whole project is a failure, and that the making of a central railway from Hexham into Scotland, and also a line to Carlisle to join the North British, will have to be re-opened next session of Parliament. There can be little doubt as to the result. The line which has just been rejected is not one of this description, but simply, as it has been termed, a block line.

THE AUSTRALIAN MAIL SERVICE.

The announcement of the Government conditions of contract for the future performance of the mail service between the Australian colonies and the mother country, is looked for with much interest by all connected with the Australian colonies.

The many and conflicting interests of the different local authorities render it a most difficult matter to devise a plan of operations, regarding route and general details, likely to meet with approval in the different provinces. Though four distinct routes to Australasia are practicable, still only one meets all the requirements. There is, first, the line *via* Cape of Good Hope; secondly, that by Panama; thirdly, *via* Suez, through the Torres Straits; and, fourthly, *via* Suez, round the Leuwin. This last-named is the only one which by general assent provides for the wants of the collective group of colonies. Experience, moreover, has established the fact, that the route *via* Suez, Ceylon, and Cape Leuwin is, undoubtedly, the most expeditious, as well as the most important, in every phase of its commercial or political bearing, and as it connects England, India, and Australasia, no question as to the continuance of this, as the main line of postal communication, can possibly arise.

The most important and difficult question is, whether the ocean steamers shall run direct from Ceylon to Port Phillip, with the Melbourne bags, or call at Nepean Bay to deposit the Adelaide mails. The issue is, in fact, between Melbourne and Adelaide. Melbourne is indisposed to allow of the steamers calling at Nepean Bay, on the ground that it would retard the delivery of the letters in Melbourne by a few hours; and Adelaide refuses to pay any portion of the postal subsidy unless the steamers call at the point mentioned, or some other place on the coast of South Australia. This determination on the part of the Executive at Adelaide arises from the fact that the steamers pass the ports of South Australia and carry the bags to the adjoining colony of Victoria, whence they are returned by local steamers, which necessarily deprives the colonists of the early receipt of their letters, and a delay of six or seven days is needlessly occasioned.

By a Treasury minute of the Home Government, it appears an offer was made, as an inducement to South Australia to join the Government postal plan, that the homeward mail steamers should call for the Adelaide bags at Nepean Bay; but this partial recognition of the rights of the colony the Legislature has rejected, so that it is clear that nothing less than the actual calling of the steamers at Nepean Bay, both outward and homeward, will secure any portion of the general subsidy from South Australia. The Adelaide Chamber of Commerce, in a late report, "expresses a preference to pay extra postage rather than to subsidise any postal scheme which ignores their geographical position."

Considerable advantage would accrue to all the Australian colonies by



making Nepean Bay the place of call to and from, and would put an end to existing causes of complaint from Adelaide, while a direct telegraphic intercourse would be established between Nepean Bay, Melbourne, Adelaide, Sydney, and the various principal towns and ports in the three colonies. Thus the arrival of the European mail would be simultaneously made known in all the provinces, and the general news thereby anticipated six clear days at Adelaide, three clear days at Melbourne, and six clear days at Sydney, before the delivery of the letters according to the present route and arrangements; while, on the return voyage, by calling at this point for the Adelaide mails, the dispatch of local intelligence, of concurrent dates, for each of the Australian colonies would be transmitted by telegraph to Nepean Bay, to be forwarded to Europe, six days later from Sydney, after the departure of her mails from her own port, three days from Melbourne, and seven days later from Adelaide, than under existing arrangements. The benefits thus expeditiously and equitably gained by each colony will be considerable, while the common interests of all persons in Europe, associated by commerce or otherwise with Australasia, would be equally promoted by the receipt of concurrent and late dates from the different places named.

The whole question demands the serious attention of the Home Government. Expedition is the great desideratum in all postal questions, and there seems no doubt as to the mode of equitably adjusting the differences between the colonies and the main points of the whole matter. If Victoria and South Australia object to this mode, and continue to retard progress for the general good of Australasia, as well as of the mother country, by their local disputes on the postal route, it will become absolutely necessary for the Imperial Government to act independently in the matter, and either to insist on the adoption of the plan as described above, which seems to meet with general approval, or to dispatch the mails to the nearest and most neutral point of these colonies, at their own cost, leaving the several colonies to distribute the bags according to local arrangements. To secure efficiency and permanency for the postal contract a liberal subsidy is required for the attainment of the undivided attention and resources of a strong and competent company.

**SPECIAL COLLIERY RULES.**—We briefly referred in our last Journal to the report of the committee of mine agents with respect to the proposed amendment of the special colliery rules for South Staffordshire. The report comprises a summary of the proceedings since their meeting on November 17, 1856, and shows what progress they have made to the present time. In December, 1856, a deputation was appointed to wait upon the committee, who assisted the Government in framing the original rules, in order to take their opinion on the amended ones. They communicated with Mr. Blackwell, and he submitted the letter from the deputation and the proposed new rules to his colleagues, who came to the resolution that there was no necessity for modifying in any way the existing rules, which have already been sanctioned by the Secretary of State. They expressed their willingness, however, to meet the mine agents' deputation, to hear any statements connected with the efficient management of collieries, should they desire it. The mine agents appear to have considered this treatment discourteous, and, therefore, undertook to bring their objections before the committee, and to request the aid of the gentlemen who assisted them had first sought. In a circular which accompanied copies of the proposed altered rules it was stated that "the large body of mine agents of the district, in proposing such alterations and additions, had been actuated by an earnest desire to raise mining discipline to a proper level, and, for the sake of all parties interested in mining, to prevent, as far as possible, the too frequent and lamentable sacrifice of human life." Nearly 400 copies of the new rules were distributed to all the coal owners in the district, and but one dissentient reply was received by the secretary—that of Mr. Thos. Barker, one of the original committee, who expressed the opinion as was contained in the resolution before referred to. The Mine Agents' Committee consider that when no advice is asked of the practical mine agents, having charge of the collieries in the district, imperfect rules might be expected. It having, however, come to their knowledge that it was the intention of the Government Inspector for the district to prosecute the coal owners for all breaches of the colliery rules, as sanctioned by the Government, and as convictions were almost daily occurring against the owners, the committee deemed it prudent not to apply to the Secretary of State for his sanction to the amended rules until the session of 1860, when the revision of the Coal Mines Inspection Act is to take place. That the present rules are capable of improvement is generally admitted, and there can be no doubt that the co-operation of the mine agents will materially assist those charged with the compilation of a fresh code in arriving at an accurate knowledge of the requirements of the case; but we trust no steps will be taken by the mine agents with a view to obtain the introduction of a code calculated to cause dissatisfaction in the minds of the masters, as such a course could not fail to prove disadvantages to all parties. The mine agents should recollect, also, that in some instances the measures proposed or modified by a master may be more beneficial to the workmen from having received more mature consideration in their various bearings than the crude ideas of the workmen themselves.

**Explosion of Fire Damp—Steward and Under-Steward Censured.**—As Richard Booth, on returning from dinner to his work, was going along the "gate" of the Cliff pit, at Laister Dyke, near Bradford, with a naked candle, an explosion suddenly occurred, whereby he was so shockingly burned that he died in a few hours afterwards. The jury returned a verdict of "Accidentally killed by an explosion of gas," adding that they were of opinion that the steward and the under-steward were greatly to blame for disobedience of the rules for the guidance of the workmen in the pit and the orders of their employer. Mr. Morton, the Government Inspector, said he should seek the punishment of the steward and under-steward elsewhere. It had been expected that a verdict of manslaughter would be returned against them.

**Offence against the Colliery Act.**—At the Town Hall, Little Bolton, on Monday, Mr. Dickinson, Inspector of Collieries, summoned Moses Heathcote, fireman at the Smith Fold Colliery, for having neglected to caution some persons working in the pit against using naked lights. On the morning of May 26, some bricklayers went to work with a naked light, when an explosion took place, and a labourer was so much injured as to cause his death. The defendant said he had been working in the pit all night, and the men ought to have been at their work at six o'clock in the morning, before he left. They did not come, however; but before he left he tried the pit with his lamp, and found it free from gas. The men went down at half-past seven, and in the meantime some gas must have accumulated.—The defendant was fined 30s., including costs.

**Fatal Accident by the Breaking of a Chain.**—Alexander Morris, aged 28, was killed in a coal mine in Little Bolton, belonging to Messrs. Knowles and Sons. He was employed as a hooker-on, and was descending the shaft in a cage, with three others, when the chain by which the balance weight was suspended broke, and the weight fell upon his head, and nearly severed it from the body.

**Breaks to Railway Coal Trucks.**—J. T. Fielden, of Thurgoland, lost his life a few days ago, near Stainborough, while attempting to "scotch" the wheel of a coal truck. The jury returned a verdict of "Accidental Death," but concurred with the coroner in the opinion that all the coal trucks should have proper breaks to them, in order to prevent further accidents. The coroner had breaks attached, and the jury requested that the coroner and Mr. Maddison, the manager at the colliery, would make a representation to Mr. Storrack, the locomotive superintendent at Doncaster for the Great Northern Company, urging upon him the necessity of having breaks attached to all the trucks.—*Sheffield Telegraph.*

**Recklessness in a Colliery.**—An inquest was held at Haydock, on Monday, by Mr. C. E. Driffield, on the body of James Heath, a boy 14 years of age, who was killed in the Four-foot Mine, at Garwood Colliery, on Saturday, by an empty wagon having been suffered to run down the balance brow, which struck the deceased, who was crossing the rails at the bottom. Although it did not appear that the cause of the accident could be clearly brought home to the owner or manager of the colliery, yet a long and searching enquiry (evidently with the intention of testing the management, and the description of the works) was conducted by Mr. Higson, Her Majesty's Inspector of Coal Mines for the district; during which it was proved that the drawers were constantly in the habit of walking up and down the brow during working hours, and that the deceased ought not to have been at the bottom, but in his working place. After a severe reprimand to the underlooker, for suffering the discipline to relax, the jury returned a verdict of "Accidental Death."—*Manchester Guardian.*

**The Manchester Association for the Prevention of Steam-Boiler Explosions** monthly meeting was held at the office of the secretary, Mr. Henry Whitworth, Corporation-street. The chief inspector (Mr. R. B. Longridge) presented his monthly report, which stated that 369 visits had been made (19 special), and 781 boilers and 567 engines inspected. Of these boilers 38 had been examined internally, and 49 had undergone a thorough examination. Of the 38 boilers, 16 were found in a dangerous condition; eight from corrosion of plates, one from fracture, and one from injury resulting from deficiency of water. Besides these, 18 were defective and in need of repairs from corrosion of plates, six from fracture of plates, 15 from safety-valves out of order, two from water-gauges dirty, and one from pressure gauge incorrect. Of the safety-valves, one was entirely inoperative, owing to the packing being screwed down too tight in the stuffing-box. The inspector, though exerting his whole strength, was unable to lift the lever; and eight other valves, of similar construction, were found in little better order. The use of packing in such a position is, as has been before observed, highly dangerous, and ought never to be permitted. The other defects do not merit remark.

**The Huddersfield Steam-Boiler Association** half-yearly meeting was held on Tuesday last; the engineer for the association (Mr. Charles H. Holt) reported that he had made four visits to the premises of members during the month, and had examined three boilers internally and 38 externally. The steam gauges of four of these were imperfect; two being entirely useless, and two indicating 20 per cent. too little. They had, however, been altered at his recommendation, as well as the cylinders of five engines examined out of 17. In consequence of alterations he had previously recommended, large savings of coal had been effected; the saving to one firm alone being at the rate of 2 tons per day. The present number of members is 68, owning 156 boilers. The committee expressed themselves satisfied at the present state of the association.

**Explosion at the Atlas Iron-Works, Manchester.**—Yesterday morning, about half-past 11, an explosion, of a lamentable character, took place at the Atlas Iron-Works, Manchester, belonging to Messrs. Sharp, Stewart, and Co. The firm is one of the most celebrated in the country for the manufacture of railway locomotives, and yesterday morning a newly-finished engine, made for the Russian Government, was brought out into an open yard, to be tested in the usual way by steam pressure. The team had been got up to a high pressure, when one of the plates of the boiler along the lines of rivets on each side gave way, and was blown off, and scattered about in fragments at a considerable distance. The number killed could not be ascertained, but amongst them was Mr. Thomas Forsyth, the well-known and highly scientific manager of the works. Mr. Dawson, foreman of the boiler-makers, was torn to pieces. Mr. J. Manson, foreman of engineers, was badly scalded, and died shortly afterwards. Mr. Nicholson and Mr. Stocks, gentlemen apprentices, were killed. James Carmichael was also killed. Several Russian engineers were also badly scalded, and removed to the infirmary. Some of the bodies will be difficult of identification, from the shocking manner in which they have been torn to fragments. The works, at which about 1500 persons are employed, have been closed, in consequence of the sad event, until Monday.

## WEEKLY LIST OF NEW PATENTS.

**GRANTS OF PROVISIONAL PROTECTION FOR SIX MONTHS.**—H. WALKER, Gresham-street: Manufacture of needles.—T. V. LEE, Thames-chambers, Adelphi: Construction of steam generators.—D. MOSELEY, Chapel Field Works, Ardwick: Manufacture of vulcanised India-rubber thread.—W. A. GILMER, South-street, Finsbury: Railway wheels.—J. EASTERBROOK (Easterbrook and Allard), Sheffield: Hatchet braces.—T. ROBINSON, and HETH GORDEN, Manchester: Safety-lamps, and in apparatus connected therewith.—C. CAMDELL, Cyclops Steel Works, Sheffield: Railway buffers.—S. CHAPMAN, Spalding: Improved preparation or combination of mineral substance, applicable for use as a pigment, cement, or mastic, or to be used either alone or in combination with other well-known materials for washing, scouring, cleansing, or bleaching purposes.—G. T. STIELER, Manchester: Generating steam and economising fuel.—G. NEALE, Northampton: Gas stoves.—J. H. JOHNSON, Lincoln's Inn-fields [for E. W. Blake, Newhaven, U.S.]: Breaking or crushing stones for road metal, and other purposes, and for crushing ores and other hard and brittle substances.—A. DAWSON, Barnes-place, Stepney: Artificial fuel.—P. MARTIN, Paris: Electro-motive power.—J. BRADSHAW, Bolton-le-Moors: Obtaining and producing motive power.—R. WINSAN and T. WINSAN, Baltimore, U.S.: Improved steam-engine; also for a mode of combining the engine and propeller shafts of steam-vessels.—T. SPENCER, Euston-road, Euston-square: Treatment of iron ores and ferruginous sands.—R. ARMSTRONG, North Woodwich [for D. W. Bowman, Pernambuco]: Steam-boilers and furnaces.

**APPARATUS FOR INDICATING AND REGISTERING THE SUPPLY OF AIR TO MINES, &c.**—Mr. Benjamin Keightley, Lofthouse, Wakefield, provisionally specified an improved apparatus for indicating and registering the flow or supply of air to mines, and other places requiring ventilation, which consists of a case provided with a dial and pointers, and of a vane or wind pendulum suspended from the interior of the case. The upper part of the pendulum rod is formed with a toothed piece or quadrant, in gear with a pinion to which one of the hands is attached, which thus works with the pendulum, and indicates the force of the current. Another pointer, carrying a stud, and intended to register any variation of the supply of air, is lodged or held loosely in a socket, and may be moved by hand to correspond with any position of the pendulum, and is held so by a spring in place; but should the current of air be varied, this registering pointer will be moved by the movement of the pendulum, so as to denote the altered amount of air admitted, and will remain so until reset; or there may be two such registering pointers similarly loosely fitted, each carrying a stud and held in place by a spring, and one being on each side of the pendulum or indicating pointer, and acted on by the movement of the pendulum, one will register the highest, and the other the smallest quantity of air admitted. The timepiece may be so adapted to the apparatus as to be capable of being stopped by a contrivance on the upper part of the pendulum or vane rod. The dial is graduated or divided into degrees or spaces, which should correspond with the dimension of the vane, which may conveniently be a definite portion of a square foot, and which he prefers to form of a light metal frame, covered with oil silk or other light material impervious to air. The case is so constructed that it can be locked. For ensuring delicacy of action the pendulum should be balanced by a counterpoise. The working of the apparatus is thus:—Suppose it be desired to register any deviation, as for example, any reduction from the supply of air determined on for the healthy ventilation of a mine or pit, the pendulum pointer working with the pendulum will indicate the greatest force of the current; by its elevation the registering point is set in proper position to correspond with the situation of the pendulum. Should the current be varied (say diminished), the pendulum or indicating pointer will come in contact with the stud on the registering pointer, and move such pointer, or cause it to travel backward on the dial, so as to denote the lowest amount of air supplied, in which position it will remain until reset by hand, thereby registering the variation; the time of its occurrence being recorded by the stopping of the timepiece by a wire or catch on the pendulum.

**STEAM-ENGINES.**—Some important improvements in low-pressure condensing engines have just been patented by Messrs. Walker, Beaumont, and Gotthard, of Mirfield and Huddersfield. They consist in the use of an additional condenser, constructed and arranged so that the exhaust steam from the cylinder shall first pass into a condenser, and thence into a cylinder of water from the hot well, the exhaust steam will be partially condensed, and the water thus injected become heated by the exhaust steam to nearly the boiling point, which water they draw away and use to supply, or feed, the boilers. The remainder of the exhaust steam will pass into the ordinary condenser, where it will be completely condensed in the usual manner.

**PORTABLE CRUSHING MACHINE.**—Mr. J. Walker, of Cowper-street, City-road, has on view a portable crushing machine, for the purpose of reducing friable ores, such as lead, &c. The fact of several small mines not being able to reduce their ores with facility, has induced Mr. Walker to turn his attention to a mode of obviating this serious inconvenience; by the use of this machine, mines producing a small quantity of ores may have them reduced and realised shortly after they are raised, and thereby obviate the necessity for sale, which in many instances are objected to by the proprietors of young mines. The machine is so constructed that it can be placed upon wheels, and consequently would be particularly applicable in a district where there is a number of small mines, each producing a small quantity of ore, which would be a nuisance to the grinder, or several might subscribe, so that it could be available for the use of each mine when required.

**ANTIFRICTION APPARATUS.**—Mr. P. A. Brasseur, Mont de Marsan, proposes the use of an apparatus which consists of rollers or cylinders arranged round an axle, each roller being itself free to revolve within a box or frame, and all the rollers being connected together by endless bands. To increase the efficiency of the apparatus, one set of rollers placed round the shaft may be contained in a cylinder or ring, which is again surrounded by other anti-friction rollers.

**FURNACES FOR HEATING BOILERS.**—M. de Chodzko, Paris, provisionally specified some improvements in furnaces for heating boilers, which consist in substituting for the ordinary fire-bars in furnaces and fire-places tubular bars placed obliquely, and made to communicate with water spaces open to the boiler, whereby a continuous circulation is kept up through the fire-bars and the boiler; the bars may be placed in a single row, at an angle with a horizontal plane, or a row may be brought from each side of the furnace, the bars in each row gradually approaching each other towards the bottom of the furnace, so as to form a space between them in the shape of the section of an inverted cone for the reception of the fuel. For the purpose of cleaning the inside of the tubes he fixes a number of scraper plates, which are drawn up and down the outside of the tubes, into a frame, and scrape the tubes by moving the scrapers up and down between the tubes by manual or other power.

**PREVENTING AND REMOVING INCRUSTATIONS IN STEAM BOILERS.**—The advantages obtained by using Edward Muff's composition are threefold—diminution of wear and tear of boiler, saving in the consumption of fuel, and in many cases a preventive against explosions. The first object is secured by preventing the formation of incrustation, which being in a great measure a non-conductor of heat, the fire-boxes and flues when covered with it (as they sometimes are to the extent of an inch or more) have to be heated far above the temperature necessary for the purpose of raising steam. The saving of fuel and liability to explosion follow as matters of course, the intensity of the fire being considerably reduced. Some instances have been known where the fire-boxes and flues have been so loaded with incrustation that they have become red-hot before the proper supply of steam could be obtained, and all this in consequence of the non-conducting property of the incrustation, which would be removed by the use of Muff's compound. The action of the composition upon the boilers is perfectly harmless, and a testimonial to that effect has been given by Professor Penny, of the Andersonian University of Glasgow.

**ELBOWS FOR PIPES AND TUBES.**—Messrs. Elcock and Bentley, Wednesbury, propose to make elbows for pipes of a curved instead of angular form, and claim the use of a curved mandril and peculiar shaped anvils used in their manufacture.

**MANUFACTURE OF GLASS.**—In flattening sheet glass, Mr. Henry Page, Whitechapel-road, proposes to employ a vacuum and atmospheric pressure to force the glass down upon a flat fire-stone. The fire-stone, upon which the tube of glass to be formed into a sheet is laid, is pierced with numerous apertures. A vacuum being formed under the fire-stone, the glass is laid thereon, the pressure of the atmosphere presses down the glass flat and smooth.

**FAN-BLOWERS.**—An ordinary fan-blower consists of two principal parts—first, a case provided with an opening or openings at or near its middle for the admission of air, and an opening or openings at or near its circumference for the discharge of air; and, secondly, a fan or vane, which revolves within the case, and communicates motion to the air. Prof. Macquorn Rankine, LL.D., of Glasgow University, proposes a contrivance which does not consist in the introduction of any new parts into the construction of a fan-blower, but in the making of its parts of such figures and of such dimensions and proportions as are best suited for the production of the requisite stream of air with the least possible waste of power; by which object it is necessary that all the motions and changes of motion of the air shall be imparted to it in the most gradual manner consistent with the action of the machine. He makes the circumference of the case of the figure of the curve called a logarithmic spiral if there be but one opening for the discharge of air, and of two or more logarithmic spirals if there be two or more openings for the discharge of air. He also uses for the figure of the circumference of the case a curve or curves composed of arcs of circles approximating sufficiently near to a logarithmic spiral or spirals for practical purposes. He makes the radius of the tips of the vanes of the fan bear to the main radius of the case a proportion depending on the proportion which the pressure of the air discharged from the casing is required to bear to the pressure due to its velocity of discharge, for the greater the latter proportion the less should be the former proportion be. He makes the vanes of the fan of a figure called a spiral of the second order, which spiral is characterised by the property that the inclination of its radius to the tangent at any point is a constant angle. The effect of the action of vanes so formed upon the air is to change its motion gradually and without abrupt variations of direction or speed from a direct radial motion to a whirling spiral motion. Instead of an exact spiral of the second order, an approximation to that figure may be employed, consisting of straight lines and arcs of circles, but he prefers using the exact figure of the spiral of the second order. He sharpens the inner edges of the vanes to make them cleave the air with the least possible resistance.

**METALLIC ALLOYS.**—The Rev. T. H. H. Kell, of Tonge, Ashby-de-la-Zouch, proposes to take from 1 oz. to 15 ozs. of steel and combine it with from  $\frac{1}{4}$  oz. to 12 ozs. of nickel, and with from  $\frac{1}{2}$  oz. to 12 ozs. of tin, and with from 1 oz. to 15 ozs. of copper. Any combination of these four metals between the limits, and in the proportions of the quantities of each as stated, produces an alloy, the properties of which vary according to the quantities of each metal taken within the proportional limits stated.

**STEAM-BOILER EXPLOSIONS.**—Scarcely a month passes without its becoming our duty to record some sacrifice of human life from boiler explosions, and in most instances, upon the facts being brought to light, it is shown that the casualty has arisen through the neglect of the party having charge of the boiler. It is apparent, therefore, that there is an absolute necessity for the general introduction of self-acting contrivances whereby reliance upon the attendant may be altogether dispensed with. The chief cause of explosions is, doubtless, deficiency of water, and consequently a self-acting feed apparatus is of the first importance. Next to the feed-water apparatus an effectual means of allowing the steam to escape, upon an extraordinary pressure in the boiler being attained, claims consideration. It being acknowledged that these are the chief requisites, the inventive powers of boiler makers and others have for some time been directed to the production of a perfect, yet simple, apparatus for accomplishing the objects in view. From time to time the invention of, and experimenting with, new contrivances has been recorded in the columns of our Journal; and from their importance and the small cost of applying them, it is surprising that so little has been done towards their adoption, and that the old dangerous practice of trusting to a human being for so serious a consequence. Among the most recent inventions which we have seen is that of Mr. W. Parsons, of Old Broad-street; and for simplicity and beauty of action it has seldom been surpassed. It affords perfect protection from explosion, and indicates whenever the party in charge, from absence or neglect, prevents the engine doing its duty. The great recommendation of the invention is that it is impossible for any part of the apparatus to get out of order without the signal of danger being at once given. Should the necessary supply of water be stopped, a powerful whistle is sounded, and cannot be stopped (being out of reach of the attendant) until the defect is remedied, as should the neglect be continued until the water has decreased to the danger point, the whole of the steam is allowed to blow off. The invention has been favourably reported on by competent engineers, and is well worthy of the attention

of all employing steam-power. A model may be seen at the inventor's offices, and from inspecting it the utility and simplicity of the appliance becomes at once apparent.

**RIFLES, AND HOW TO USE THEM.**—I confess that some months ago I had fears for the safety of the British Isles; I now entertain no such apprehensions, because I know that the *Riflemen's Manual*, by Mr. Burt, is on its "circling march" throughout the length and breadth of the land.—J. SOUTON: *Rosherville, June 30.*

**TO MINING ENGINEERS, DRAIN PIPE MAKERS, OR MACHINISTS.**—A DRAIN PIPE WANTED.—WANTED, about 150 fms. of AIR-TIGHT PIPE, or TUBE, suitable for FORMING a SYPHON, with a stop-cock at each end, to be, say, 2 in. diameter inside, and of material strong enough to resist the pressure and action of water in a copper mine. To be delivered at the railway terminus at Barnstable.—Tenders, stating lowest cost and time required, to be addressed to Mr. CHARLES HAND, Castle-street, Liverpool. All the tube will be upon a horizontal level, within a short distance of each end.

**MINING PROPERTY FOR SALE.**—The LEASE, for 9999 years, of the CURRIANE (or Clew Bay) valuable COPPER and SULPHUR MINES, in the county Mayo, Ireland, extending over an area of 8000 acres, TO BE DISPOSED OF, in Two Lots, on reasonable terms. The royalty is small.—Samples of the copper and sulphur ores may be seen, and all particulars had, on application to Mr. GOATLEY 51, Threadneedle-street, London, daily.

**IRONWORKS NEAR GLASGOW FOR SALE.**—FOR SALE, the GARTNESS MALLEABLE IRONWORKS, in the vicinity of the town of Airdrie, county of Lanark, capable of turning out 160 to 180 tons of malleable iron weekly. Also, 20 acres of LAND contiguous, in a high state of cultivation; and THREE FORGES, capable of turning out forgings or uses of 10 to 12 tons weight and under, all as particularly described in former advertisements. These works, which the proprietors are parting with as they intend to concentrate their business, for the future, at their other works at Calderbank and Chapelhill, are situated in a good locality for obtaining the necessary supplies of iron and coal on the very best terms, and for sending the finished goods to market; and the machinery is in the best working order.—For further particulars, apply to the MCKENZIE IRON and STEEL COMPANY, 160, West George-street, Glasgow.

**SUPPLY OF COALS TO BIRMINGHAM.**—TO BE DISPOSED OF, ONE-HALF SHARE in a NEW COLLIERY, now in work, admirably situated for railway communication with Birmingham, and possessing advantages rarely met with. Quantity about 115 acres. A pair of shafts, 8 ft. in the clear, have been sunk to the lowest seam, and the requisite machinery and colliery materials are on the ground ready for business. The proprietor has practical experience, and requires additional capital, the more thoroughly to develop the undertaking. An early and remunerative return may be relied on.—For further particulars and to treat, apply to H. M. WAINWRIGHT, Esq., solicitor, Dudley.

**COLLIERY TO BE LET.**—TO BE LET, with immediate entry, the DENTON COLLIERY, belonging to the Trustees of Ellis Fletcher, Esq., deceased, situated seven miles from Manchester, four from Stockport, and three from Ashton.—For information, apply to JOHN FLETCHER, Esq., Clifton, near Manchester; or to Mr. PETER ROTHWELL, at the Colliery, Denton, Manchester.

**GLAMORGANSHIRE.**—FOR SALE, a SMALL FREEHOLD WORKS AND COTTAGES, conveniently situated for supply of coal, &c., with or without VITRIOL CHAMBER, MACHINERY, and OTHER PLANT.—Apply to H. and F. GIBBS, Skewen, near Neath.

**WANTED, a HIGH-PRESSURE DIRECT ACTING STEAM ENGINE,** of from 30 to 40-horse power, suitable for working an incline; also BOILERS for the same.—Apply by letter, stating price, &c., to JOHN HARRIS, Broughton Moor Colliery, Maryport.—June 24, 1858.

**FOR SALE, a 24 in. WHIM HORIZONTAL ENGINE,** with 10 tons boiler, nearly new, in excellent condition, and drawing machine attached. As this engine is very superior in make and condition, parties requiring one will do well to examine it.—Apply to Mr. C. WESCOMB, 21, Southamby, Exeter.

**GOLD COMPANIES.**—PROPRIETORS OF SHARES in GOLD MINING COMPANIES, and all persons interested in the question of gold production in Australia, California, Wales, Ireland, &c., are INVITED to ATTEND a MEETING at the City of London Tavern on Thursday, the 15th of July, at One o'clock precisely, to receive a communication on this important subject, on which so many millions of money have been hitherto unfortunately expended. In the interim, the undersigned will be happy to see any person interested, or to receive communications, at his office, 74, King William-street, City, London, E.C. F. SQUIRE.

**COLONIAL BANK** (Subscribed Capital, £2,000,000; Paid-up Capital, £500,000).—The Court of Directors of the Colonial Bank hereby give notice, that, in pursuance of the provisions of the Charter, a HALF-YEARLY GENERAL MEETING of proprietors will be HELD on Wednesday, the 7th July, 1858, at the London Tavern, Bishopsgate-street, at Twelve for One o'clock precisely, to receive the report of the proceedings of the corporation. The Transfer-books of the corporation will be closed on the 26th inst., and re-open on the 26th July. By order of the Court of Directors, 13, Bishopsgate-street Within, June 14, 1858. C. A. CALVERT, Sec.

**COPIAPO AND CALDERA RAILWAY.**—Notice is hereby given that the NEXT QUARTERLY DIVIDEND, of FOUR PER CENT, will be PAYABLE on the shares of the above company, to the holders of shares registered in England, at the banking-house of Messrs. Williams, Deacon, and Co., on and after the 21st of July. By order, EDWARD J. COLE, Office of Registry and Transfer, 2, New Broad-street.

**COPIAPO EXTENSION RAILWAY COMPANY.**—Notice is hereby given, that the Directors have made a CALL of ONE POUND per share (making, with instalments already paid, the sum of £5 per share), payable at the banking-house of Messrs. Williams, Deacon, and Co., 20, Birchin-lane, on or before the 15th July next. The scrip certificates, together with the bankers' receipt, must be left at the office of the company, 2, New Broad-street, to have the call inscribed thereon. By order of the Directors, EDWARD J. COLE, Sec.

**THE WEST PAR CONSOLS COPPER AND TIN MINING COMPANY.**—Notice is hereby given, that a GENERAL MEETING of the shareholders in this company will be HELD at the office, 117, Bishopsgate-street Within London, on Tuesday, the 6th day of July next, at One o'clock precisely. By order of the Committee, J. H. MURCHISON, Sec. and Purser, 117, Bishopsgate-street Within, London, June 23, 1858.

**WHEAL UNY.**—Notice is hereby given, that the NEXT QUARTERLY MEETING of the adventurers will be HELD at 44, Moorgate-street London, on Tuesday, the 20th day of July inst. The chair will be taken at One o'clock precisely.—44, Moorgate-street, E.C., July 3, 1858. JAMES HUTT, Sec.

**WICKLOW COPPER MINE COMPANY (LIMITED).**—A SPECIAL GENERAL MEETING of the shareholders of the Wicklow Copper Mine Company (Limited) will be HELD at the office of the company, 10, Leinster Chambers, 43, Dune-street, on Thursday, the 15th July, 1858, at the hour of One o'clock for the purpose of confirming or rejecting the resolutions for the regulation and government of the company, unanimously agreed to at the Special Meeting, duly convened for this purpose on the 8th June inst. And notice is also given, that, after the business of the said Special General Meeting is concluded, the STATED HALF-YEARLY MEETING of the company will be HELD at which all the matters provided by the resolutions will be submitted for the consideration and decision of the shareholders.

The statement of accounts and managing director's report will be ready for delivery on and after Thursday, the 8th July next.—DUBLIN, June 30, 1858.

**GENERAL MINING ASSOCIATION.**—Notice is hereby given that the BOOKS for the TRANSFER OF SHARES in this association WILL BE CLOSED on the 5th, and RE-OPENED on the 17th of July. By order of the Board, J. B. FOORD, Sec., 52, Old Broad-street, London, June 30, 1858.

**ROYAL SANTIAGO MINING COMPANY.**—The Directors hereby give notice, that they have this day made a CALL of ONE POUND per share upon the 7000 shares of the company, payable on or before the 24th day of September next; and that a discount of 2½ per cent. will be allowed upon all payments of the call made on or before the 13th July inst. A form to make the payment will be given to the shareholders upon application at the office, and the certificates of the shares must be left at the same time to have the payment endorsed thereon.—38, Broad-street-buildings, July 1, 1858.

**THE STRATHALBYN MINING AND SMELTING COMPANY (LIMITED).**—Notice is hereby given, that the ADJOURNED EXTRAORDINARY GENERAL MEETING of the shareholders of the Strathalbyn Mining and Smelting Company (Limited) will be HELD at the London Tavern, Bishopsgate-street in the City of London, on Wednesday, the 14th day of July, 1858, at One o'clock in the afternoon precisely, in order to take into consideration the report of the directors, as the several matters remaining undischarged of the Extraordinary General Meeting. By order of the Directors, JEHU HITCHES, Sec., Dated this 30th day of June, 1858, 8, Finch-lane, Threadneedle-street, London, E.C.

**THE SMELTING, REDUCTION, LIME, AND COAL COMPANY (LIMITED).** Capital £80,000, in shares of £1 each.—Deposit 5s. per share. Half the shares have been taken by the directors and others; 40,000, therefore, only remain for allotment. DIRECTORS.

WILLIAM CARSON, Esq., Great George square, Liverpool. JOHN SHIMMIN, Esq., 150, Islington, Liverpool. JOSEPH WILSON, Esq., Falkner-square, Liverpool. THOMAS GOODIER, Esq., Town-road, West Derby, Liverpool. W. S. SUTTON, Esq., Aman Lodge, Brighton. FRANCIS LANGTON, Esq., 36, Clifton-terrace, Brighton. SAMUEL BALL, Esq., 29, Water-street, Liverpool. The whole of the above directors will retire at the first annual meeting of the company when new directors and auditors will be nominated and elected by the shareholders. BANKERS—Messrs. I. BARNED and Co., Lord-street, Liverpool. CONSULTING ENGINEER—William Pease, Esq., F.G.S., Haigh, Lancashire. MANAGER OF THE SMELTING AND REDUCTION WORKS—Mr. Alfred Jenkin. COLLIERY VIEWER—Isaiah Booth, Esq., Hollinwood, Manchester. SOLICITOR—Maskell Pease, Esq., Wigan. SECRETARY—Mr. F. Owen.

**OFFICES.**—6, CASTLE STREET, LIVERPOOL. The objects of the company are to carry on lead and zinc smelting, the reduction auriferous and argentiferous ores, lime burning, and the working of coal, canal, ironstone, and other workings and manufactures having affinity to these operations, found expedient and profitable. [A detailed prospectus will hereafter appear.] Applications for shares must be forwarded to the secretary, Mr. F. OWEN, 6, Castle street, Liverpool.







**VALUABLE COAL FIELD IN THE COUNTY OF AYR.**  
IN CONNECTION WITH THE MAYBOLE AND GIRVAN RAILWAY.—It is proposed to SUBMIT TO THE PUBLIC, for LETTING ON LEASE, the most important part of the valuable FIELD OF COAL in the estate of DALQUHARRAN, parish of Dalry, and county of Ayr, which, consisting of various seams, is of great thickness, the aggregate thickness of the seams being about 35 ft., of which one seam alone averages 15 ft.

This coal field has been worked by the proprietor for local sale during a long period of time, and it has recently been explored in new localities with great success, so as to prove its condition, which is most favourable for a large vend.

The Maybole and Girvan Railway passes through it, within less than 100 yards of the spot at which it might be most judicious to make an extensive and effective colliery fitting. The distance from the sea port of Girvan is under seven miles, the quality of the coal is excellent, especially as a gas and steam coal, and it is to be expected that a large coal field established as soon as the railway, now making, is completed. An export trade may be made to the railway company has been made to convey the coals from any part of the estate to the ship's side, at a moderate and fixed rate.

The coal field of the Valley of the Girvan, of which this forms a part, is the most southern on the west coast of Scotland, and, consequently, the nearest to all the sea ports of Ireland, and to Liverpool.

The quality of the coal has also been considered by many competent judges to be eminently suited for the smelting of iron.

Parties are invited to examine this field of coal; and for this purpose are requested to apply to Mr. McMenamin, at the Dalquharran Colliery, Maybole, N.B.; and further reference may be made to F. W. KENNEDY, Esq., Royal Bank, Ayr; to WILLIAM BROWN, Esq., Maybole; and to ROBERT SIMPSON, Esq., mining engineer, Ryton, Newcastle-on-Tyne, who has a thorough knowledge of the circumstances and capabilities of the coal field, and can, therefore, suggest the best and most advantageous mode of working it, and contiguous to Mr. Walters' projected improvement. Immediate possession can be given. For further particulars, enquire at the iron and nail warehouse of Messrs. RAYNE and BURN, Stoney Hill, Broad Chare, Newcastle-on-Tyne.

N.B. The goodwill of the business will go to the purchaser or tenant.

**TO COAL AND IRONMASTERS.—TO BE SOLD, BY PRIVATE CONTRACT, at the CEFFN COAL, COKE, and IRONWORKS, NEAR BRIDGEND.**

A HIGH-PRESSURE ENGINE, 16 in. cylinder, 3 ft. stroke, with fly-wheel, and all the gear for an incline plane.

A LOW-PRESSURE ENGINE, 30 in. diam. cylinder, 6 ft. stroke, with parallel motion, beam, and metallic piston, &c.

A well got up NEW PATENT SELF-ACTING BRICK MAKING MACHINE, with gearing, complete, and TWO PRESSING MACHINES in connection with it, made by Clayton, London.

HORSE GEAR for CHAFF CUTTING, almost new.

ALL THE PARTS of a 24 in. diam. WATER-WHEEL, in good condition (arms wanting).

SEVERAL BLACKSMITHS' ANVILS.

The APPARATUS of a BALANCE PIT, consisting of two carriages, 1 in. chain 50 yards in length, guide rods, sheaves, &c.

Several tons of OLD CHAIN, and other useful materials for collieries and ironworks.

For further particulars, apply to the MANAGER, at the Works.

**SPECIAL NOTICE.—ANTHRACITE COAL, MINERAL, AND OTHER PROPERTY.**

TO CAPITALISTS, IRONMASTERS, AND OTHERS.—A valuable FREEHOLD MINERAL ESTATE, of ample magnitude, centrally situated in South Wales for railway transit and shipment, containing ANTHRACITE or STEAM COAL, BLACKBAND IRON ORE, IRONSTONE, FIRE AND OTHER CLAYS, PAVING, BUILDING, GRINDING, FLAGG, SILLS, and OTHER STONE, with adequate water-power and timber. The PROPRIETOR is prepared to DISPOSE OF ONE UNDIVIDED SIXTH PART, or SHARE, upon most advantageous terms to a purchaser, but with the avowed view of his joining him in working the same, which might be done at a comparatively trifling expense. None but principals will be treated with, this announcement being strictly genuine.—Apply, pre-paid, with real name and address, to "C. V." Post-office, Gloucester.

N.B. The minerals have been proved by levels and otherwise.

**TO COLLIERY PROPRIETORS AND OTHERS.**

FOR SALE, ONE 60-in. cylinder PUMPING ENGINE, 10 ft. stroke in cylinder, and 9 ft. in shaft, with four boilers about 45 tons, balance-bob, first piece of rod, &c.

ONE 33-in. cylinder PUMPING ENGINE, 7 ft. stroke, equal beam, with a boiler about 9 tons, nearly new, balance-bob, first piece of rod, &c.

A PUMPING ENGINE, on sun's patent combined principle, 22 and 40-in. cylinders, 8 ft. stroke, equal beam, first piece of rod, &c.

The above are all within four miles of a port.—For further particulars, apply to Mr. THOMAS FIELD, 2, Crown-court, Threadneedle-street, London, E.C.

STEAM-ENGINES.—IMPORTANT TO MINERS, MANUFACTURERS, CONTRACTORS, AND ALL REQUIRING STEAM-POWER.

**MESSRS. R. AND J. COUPE, CLAYTON FOUNDRY, WIGAN.**

MANUFACTURERS OF HORIZONTAL HIGH-PRESSURE STEAM-ENGINES, from 6 to 200-horse power, have at present ON HAND, COMPLETED—

TWO of 30-horse power, 20 in. cylinder, 3 ft. stroke, equilibrium slide piston valves.

ONE of 40-horse power, 24 in. cylinder, 4 ft. stroke, equilibrium piston valves.

ONE of 22-horse power, 17 in. cylinder, 3 ft. stroke.

SEVERAL of 12 in. cylinders, 3 and 2 ft. stroke.

Besides these, they have TWENTY to THIRTY others ready for putting together, all the wrought and cast-iron work being ready, bored, turned, planed, and fitted. All the engines are fitted with wrought-iron shafts and cross-heads. By confining themselves to this particular class of engines, the use of their first-class tools, and the manufacturing of their engines in sets of some half-dozen of each size, thereby reducing to a minimum the time lost in alterations and repairs, and in the different work, the proprietors are enabled to offer a first-class article at a really low figure.

Applicants will please to state for what purpose the engine is required, and whether wanted with or without governors, polished or black; but a personal inspection is earnestly requested.

**GAS ENGINEERING.—GAS WORKS ERECTED FOR PRIVATE USE, as well as for VILLAGES, TOWNS, or CITIES, at home or abroad.** Old Gas Works Remodelled and Leased. References to fifty gas works.

GEORGE BOWER, St. Neots, Hunts.

**PATENT LEVER BREAK, FOR RAILWAY WAGONS.**

doing away with the objectionable break rack. Can be APPLIED TO EXISTING STOCK at a TRIFLING EXPENSE. Royalty moderate. Models can be seen at 34, Great George-street, Westminster; and the breaks in action at the works of the Railway Carriage Company; at the Peterboro' Station, on the Eastern Counties Railway; the Rugby Station, London and North-Western Railway; the Cardiff Docks Station, Taff Vale Railway; and at the Works, Oldbury, near Birmingham, where all communications are requested to be sent.

**ASSAY OFFICE AND LABORATORIES, DUNNING'S ALLEY, BISHOPSGATE STREET WITHOUT, LONDON.**

Conducted by JOHN MERRICK, F.C.S., Author of *Manual of Practical Assaying*, Metallurgical Papers, &c.

Assays and Analyses of every description performed as usual. Special Instruction in Assaying and Analysis. Consultations in every branch of Metallurgical and Manufacturing Chemistry. Assistance rendered to intending Patentees, &c., &c.

For amount of fees, apply to the office, as above.

**GUTTA PERCHA BANDS, TUBING, &c.**

Our BANDS, carefully MANUFACTURED from the VERY BEST GUTTA PERCHA only, are considerably CHEAPER, and, when fairly worked, are far more DURABLE than LEAD. Can be had in lengths of 100 or 120 feet without a joint, are easily joined or repaired, and, when worn out, re-purchased by us at about one-third of their original cost. In the event of a break down, a band of any size can be supplied within a few hours of receipt of order. The present prices are as under:—

Bands ½ in. thick and upwards to ½ in. . . . . 2s. 6d. per lb.

LADIES BAND ½ in. thick . . . . . 2s. 2d. per lb.

Subject to a liberal discount for cash, varying according to quantity. TUBING and other articles equally low. All our patented manufactures are to be obtained wholesale from our own works; retail from any of our dealers.

THE WEST HAM GUTTA PERCHA COMPANY.

West-street, Smithfield, London, E.C.

**PRICE'S PATENT FIRE-RESISTING SAFES, with CASE-HARDENED DRILL-PROOF DOORS, are the ONLY SAFES that will SUCCESSFULLY RESIST the new burglar's instrument, the steel drill, chisel, and gunpowder.** Sold retail 30 per cent. under the best safes of other makers. Price lists gratis.—Works, Wolverhampton.

**MAPPIN'S DRESSING CASES AND TRAVELLING BAGS.**

—MAPPIN BROTHERS (Manufacturers by Special Appointment to the Queen) are the only Sheffield makers who supply the consumer in London. Their London Show Rooms, 67 and 68, King William Street, London Bridge, contain by far the LARGEST STOCK OF DRESSING CASES, and LADIES' and GENTLEMEN'S TRAVELLING BAGS, in the world, each article being manufactured under their own superintendence.

MAPPIN'S GUINEA DRESSING CASE, for gentlemen.

MAPPIN'S TWO GUINEA DRESSING CASE, in solid leather.

LADIES' TRAVELLING and DRESSING BAGS, from £2 12s. to £100 each.

GENTLEMEN'S ditto ditto, from £3 12s. to £80.

Messrs. MAPPIN invite inspection of their extensive stock, which is complete with every variety of style and price.

A costly Book of Engravings, with prices attached, forwarded by post on receipt of 12 stamps.

MAPPIN BROTHERS, 67 and 68, King William-street, City, London; Manufacturer, Queen's Cutlery Works, Sheffield.

**WINES FROM SOUTH AFRICA.**

DENMAN, INTRODUCER of the SOUTH AFRICAN PORT, SHERRY, &c., &c., 29s. per dozen, bottles included. The well-established and daily increasing reputation of these wines (which greatly improve in bottle), renders any comment respecting them unnecessary.

Wine in cases forwarded free to any railway station in England.

EXCELSIOR BRANDY, Pale or Brown, 15s. per gallon, or 30s. per dozen. Terms cash.

Country orders must contain a remittance. Cross checks, Bank of London.

Price lists forwarded on application.

JAMES L. DENMAN, 65, Fenchurch-street, corner of Railway-place, London.

**RAILWAY WAGONS.—WILLIAM A. ADAMS AND CO.**

MIDLAND WORKS, BIRMINGHAM.

BROAD AND NARROW GAUGE COAL AND IRONSTONE WAGONS.

IN STOCK—FOR SALE OR HIRE.

**THE RAILWAY CARRIAGE COMPANY,**

OLDBURY, NEAR BIRMINGHAM.

MANUFACTURERS OF EVERY DESCRIPTION OF RAILWAY PLANT AND IRONWORK.

NEW AND SECOND-HAND RAILWAY WAGONS ALWAYS IN STOCK FOR SALE OR HIRE.

LONDON OFFICES.—34, GREAT GEORGE STREET, WESTMINSTER.

**THE BIRMINGHAM WAGON COMPANY (LIMITED) HAS**

RAILWAY WAGONS FOR HIRE.

Apply to the SECRETARY, 3, Newhall-street, Birmingham.

**THE PERMANENT WAY COMPANY GRANT LICENSES**

for the USE of IMPORTANT PATENTED INVENTIONS (now adopted by numerous railways at home and abroad, to the extent of upwards of 10,000 miles), by the following patentees:—

Adams, W. B. Boucherie, Dr. H. May, Charles.

Ashcroft, P. Bridgegore, H. Pole, William.

Barlow, P. W. Bruff, P. S. Prince, Paul.

Barlow, W. H. Doull, A. Richardson, R.

Barnham, W. Macdonnell, J. J. Samuel, James.

Bergue, C. de Macdonnell, Sir John. Wild, C. H.

Billups, J. E. Mansell, R. C. Woodhouse, W. H.

Every information as to description, cost, &c., of the various plans may be obtained on application to the secretary.

26, Great George-street, Westminster. WILLIAM HOWDEN.

**JOHN ROGERSON AND CO., NEWCASTLE-ON-TYNE, AND**

MIDDLEBROOK-ON-TEES.

PIG, BAR, PLATE IRON, CHAINS, ANCHORS, FORGINGS, GIRDERS, PIPES, FOUNDRY WORK.

LONGRIDGE'S WEST HARTLEY STEAM COALS (on the Admiralty List).

COOKING, GAS, HOUSE, AND SMITHS' COALS, COKE, FIRE-BRICKS, &c.

**JOHN H. PECK, MANUFACTURER OF RAILWAY OIL**

COVERS, CART AND WAGON COVERS, OIL CLOTH, STACK COVERS, BOAT SHEETS, TARPAPULS, BRATICE CLOTH.

COKE AND CORN SACKS, POTATO BAGS, TWINE, &c., WIGAN.

LONDON AGENT.—T. E. WELLS, 15, Duke-street, Adelphi.

**RICHARDSON AND CO., ENGINEERS AND IRONFOUNDERS,**

TUNNEL FOUNDRY AND SPRING GARDEN IRONWORKS, DUDLEY, NEAR BIRMINGHAM.

MANUFACTURERS OF GAS AND WATER APPARATUS, STEAM-ENGINE BOILERS, SINGLE AND DOUBLE GAS HOLDERS, TANKS, BRIDGES, BOATS, ROOFS, VALVES, &c.

GAS WORKS ERECTED FOR MINES, PUBLIC BUILDINGS, TOWNS, &c.

**MORRIS STIRLING'S PATENT CAST AND MALLEABLE**

IRON.—THE TOUGHENED CAST-IRON, for GIRDERS, SHAFTINGS, BOLLS, PINIONS, RAILWAY WAGON WHEELS, ENGINE CYLINDERS, HYDRAULIC CYLINDERS, and for all purposes where a strong, dense iron is required, CAN BE PROCURED of the following brands:—

DUNDYVAN. FORTH COMPANY. HORSLEY COMPANY.

RAILS OF (OR SURFACED WITH) PATENT HARDENED IRON, CAN BE ORDERED direct from the following WORKS:—

PAKEGATE. LLOYDS, FOSTER, AND CO. LOSH, WILSON, AND BELL.

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PAKEGATE. LLOYDS, FOSTER, AND CO. THREDEGAR.

PAKEGATE. LLOYDS, FOSTER, AND CO. DUNDYVAN.

For durability, these rails have never been surpassed. They wear out several sets of ordinary rails, and do not laminate.

Full information, and terms for use of patent right, can be obtained of Messrs. CONNELL and HOPKINS, 3, Princes-street, Westminster; and of Mr. S. THORNTON, Bradford-street, Birmingham. Mr. THORNTON also receives orders for Mr. MORRIS STIRLING'S Patent Iron and Rails.

**ROBERT MUSHET'S CAST-STEEL.**

TO CONTINENTAL AND FOREIGN GOVERNMENTS, AND CAPITALISTS.

**ROBERT MUSHET, of COLEFORD, GLOUCESTERSHIRE,**

having INVENTED and PERFECTED, on the scale of manufacture, SEVERAL METHODS for the PRODUCTION of the BEST CAST-STEEL, at a cost far lower than has heretofore been accomplished, and from such materials as are cheap, abundant, and accessible in almost all countries, and now OFFERS these UNPATENTED PROCESSES FOR SALE, upon terms hereafter to be arranged with such parties as may be disposed to treat for them. The processes are as under:—

1. THE MANUFACTURE OF CAST-STEEL direct from the ORE, at a prime cost of £12 per ton in the ingot, and of first-rate quality.

2. THE MANUFACTURE OF CAST-STEEL direct from DEOXIDIZED IRON ORES, at a cost of from £12 to £15 per ton of ingots. The quality of this steel, when made from ore carefully selected, is far superior to that at present manufactured from the expensive bar-iron of Sweden and Russia.

3. THE MANUFACTURE OF CAST-STEEL from ANY KIND OF BAR-IRON, STEEL, or SCRAP IRON, whether COKE or CHARCOAL IRON, so that a first-rate quality is obtained from ordinary charcoal iron, and a good serviceable cast-steel is prepared from the cheapest scrap or bar-iron, at a cost of from £12 to £15 per ton.

4. THE MANUFACTURE OF CAST-STEEL from PIG-IRON and IRON ORE, so as to ensure the production of good cast-steel from coke pig-iron of average quality, and first-rate cast-steel from charcoal pig-iron, at one melting, and without injury to the melting-pots, for £10 to £15 per ton.

Parties who may be disposed to treat for any of these inventions, and who agree upon the terms which may be proposed, will also, if they require it, be taught and fully instructed in the routine for producing cast-steel upon the scale of manufacture, namely, the construction of the furnaces, pot mixtures, method of making the pots, managing them, &c., heating and drawing out of the ingots, &c.; and they may have their own workmen fully instructed in such routine.

In all the foregoing processes there is no departure required from the ordinary system of melting cast-steel, as now practised in Sheffield and elsewhere.

Parties desiring proofs may bring their own materials to be melted into steel, in order to be convinced that the advertiser has advanced nothing but what he can carry out to the fullest extent.

N.B. The processes here offered are wholly independent of those submitted to the Ebbw Vale Iron Company by the advertiser.

References.—Messrs. BROWNE, NREAD, and GOSLING, Bankers, Monmouth.

THOMAS GRATTIER, Esq., Banker, Newport, Monmouthshire.

**SHORTRIDGE, HOWELL, and JESSOP, HARTFORD STEEL**

WORKS, SHEFFIELD, SOLE MANUFACTURERS OF HOWELL'S PATENT HOMOGENEOUS BOILER-PLATE METAL, combining the strength and durability of steel with the malleability of copper; warranted to bear double the pressure of the best boiler-plate iron; RIVETS, ANGLES, and STAYS of the same material. Also, RUSSELL and HOWELL'S PATENT CAST-STEEL TUBES, for multitubular boilers, shafting, railway axles, &c.

Application to be made to SHORTRIDGE, HOWELL, and JESSOP, Hartford Steel Works, Sheffield; and Messrs. HARVEY and Co., 12, Haymarket, London.

**CALVERT'S PATENT PROCESS FOR MAKING COKE AND**

IRON FREE FROM SULPHUR.

For LICENSES to USE the above process, apply to ROBERT LONGDON, Jun., 63, King-street, Manchester.

For APPLICATION of the PATENT to GAS WORKS, apply to Mr. GEORGE TRICKETT, Exchange Chambers, Manchester.

**MESSRS. R. & J. COUPE, ENGINEERS AND IRONFOUNDERS,**

MANUFACTURERS OF HORIZONTAL HIGH-PRESSURE STEAM-ENGINES, from 10 to 200-horse power; the larger description of engines mounted with their IMPROVED EQUILIBRIUM SLIDE PISTON VALVE, which has proved itself so eminently adapted for winding and other engines.

Clayton Foundry, Wigan.

**CONDIE'S PATENT STEAM HAMMERS.**

FIRST-CLASS STEAM HAMMERS, from 10 cwts. to 7 tons, suitable for jobbing forges, puddling forges, and the smith's shop of engineers, ship-builders, wagon builders, agricultural implement makers, railway and steam navigation companies, &c.—Govan Ironworks, Glasgow.

JOHN CONDIE.

**STEAM PUMPS, FOR LAND AND MARINE PURPOSES.**

SINGLE or DOUBLE ACTING; sizes from 2½ to 12 in. diameter, and from 4 to 18 in. stroke; by JOHN CAMERON. Used for feeding boilers, raising water (for reservoirs, tanks, irrigation, &c.), turning power, or as a steam fire engine.

Works, Egerton-street, Hulme, Manchester.

**IMPORTANT TO MINE OWNERS AND OTHERS REQUIRING IRON OF A VERY**

SUPERIOR QUALITY FOR CHAINS, AND ANY PURPOSES WHERE GREAT TOUGHNESS IS NEEDED.

**MESSRS. R. AND W. JOHNSON AND CO., of BRADFORD**

IRONWORKS, NEAR MANCHESTER, can with the greatest confidence RECOMMEND their BEST DOUBLE WORKED SELECTED CHARCOAL SCRAP IRON, as SUPERIOR to ANY ARTICLE ever offered.—For prices, &c., apply to Mr. J. HONLEY, iron and metal agent, Barlow's-court, Market-street, Manchester.

SHORT LINKED TESTED CHAIN SUPPLIED, made from the above iron.

**PATENT SAFETY FUSE.—THE GREAT EXHIBITION PRIZE**

MEDAL was AWARDED to the MANUFACTURERS of the ORIGINAL SAFETY FUSE, BICKFORD, SMITH, DAVEY, and PRYOR, who beg to inform Merchants, Mine Agents, Railway Contractors, and all persons engaged in Blasting Operations, that, for the purpose of protecting the public in the use of a genuine article, the PATENT SAFETY FUSE has now a thread wrought into its centre, which, being patent right, infallibly distinguishes it from all imitations, and ensures the continuity of the gunpowder.

This Fuse is protected by a Second Patent, is manufactured by greatly improved machinery, and may be had of any length and size, and adapted to every climate.

Address.—BICKFORD, SMITH, DAVEY, and PRYOR, Tuckingmill, Cornwall.

**SAFETY FUSE.**—Messrs. WILLIAM BRUNTON and CO., PEN-

HALLICK, near TRURO, CORNWALL, MANUFACTURERS OF FUSE, of every size and length, as exhibited in the Great Exhibition of 1851, and supplied to the Royal Arsenal at Woolwich, the Arctic Expedition, and every part of the globe.

Messrs. BRUNTON and Co. are at all times PREPARED TO EXECUTE UNLIMITED ORDERS for SUPPLYING FUSE direct from their own MANUFACTORY, upon warrant that it will prove equal to, if not better, than any to be procured elsewhere.

**MESSRS. KNOWLES AND BUXTON, CHESTERFIELD,**

MANUFACTURERS OF PATENT TUBULAR TUYERES.

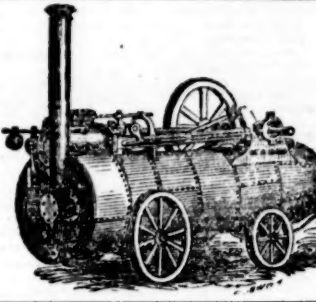
HOT-BLAST FURNACE TUYERES, with sockets, 36s. each, without sockets, 25s. each; SMITHS' FORGE TUYERES, with sockets, 16s. each, without sockets, 10s. each; delivered at Chesterfield Station.

**MINING STEAM-ENGINES.**

TO BE LET ON HIRE, OR FOR SALE, PATENT PORTABLE STEAM-ENGINES.

From 6 to 20-horse power, & upwards, SUITABLE FOR PUMPING, WINDING, AND WORKING MACHINERY GENERALLY.

Apply to T. CRESSWELL, Engineer, 92, Blackfriars-road, WHERE THEY MAY BE SEEN.



**HALEY'S PATENT LIFTING JACK,**

MANUFACTURED BY THE INVENTOR, JOSEPH HALEY,

ALBION STREET, GAYTHORN, MANCHESTER.

SCREW JACKS, SHIP JACKS.

SLIDE AND CENTRE LATHES, PLANING, SHAPING, BORING, DRILLING, SCREWING, WHEEL CUTTING, AND OTHER MACHINES.

RIVET MAKING MACHINES.

TO ENGINEERS, MILL OWNERS, AND OTHERS.





MANUFACTURERS OF VULCANIZED AND UNVULCANIZED INDIA RUBBER IN EVERY FORM.

Buffer, Bearing, and Carriage Springs, Valves for Marine and Land Engines, Tubing and other Appliances for Scientific purposes.

ELASTIC-CANVAS AND INDIA RUBBER STEAM PACKING, which Wears six times longer, Economises Labour and Tallow, is always ready for use, and causes less Friction than any other Packing.



## THE MINING SHARE LIST.

Shares.	Mines.	Paid.	Last Price.	Present.	Dividends per Share.	Last Paid.	Shares.	Mines.	Paid.	Last Price.	Present.
5120	Alfred Consols (tin), Phillack [S.E.]	£2 11 0	£10	9 1/2	£18 19 0	£20 3 0	June 7, 1888.	100	Pentre Llyn (lead)	20 0 0	22
1624	Baileyswidden (tin), St. Just	11 5 0	4	4 1/2	12 5 0	0 5 0	Jan. 1, 1884.	1160	Pernan St. George (tin)	21 0 0	22
10000	Bampfylde (copper), Devon	0 12 6	1 1/2	1 1/2	312 10 0	0 0 7 1/2	Jan. 12, 1888.	512	Polbrean (tin), St. Agnes	6 0 0	12
4000	Bampfylde United (copper), Tavistock	2 6 8	6 1/2	6 1/2	10 3 0	0 4 0	June 18, 1888.	6380	Ponterwyd (lead), Cardigan	3 0 0	12
240	Boscawen (tin), St. Just	20 10 0	65	65	21 0 0	3 0 0	Sept. 4, 1887.	2400	Portkellie United (tin) [S.E.]	9 0 0	24
200	Botalack (tin, copper), St. Just	91 8 0	170	170	425 5 0	2 10 0	June 15, 1888.	560	Prill-y-Wheal (lead), Mid.	7 12 0	12
1200	Brightside and Frossett Grove, Derbyshire	3 0 0	3 1/2	3 1/2	3 0 0	3 0 0	April 20, 1886.	4096	Queen of Hart, Ashburton	1 5 0	10
100	Bryndall Hall (lead), Flintshire	25 0 0	50	50	13 0 0	5 0 0	July 31, 1886.	6000	Ramsley Hill (tin), St. Agnes	1 0 0	10
1000	Bryntall, Llanidloes, Montgomeryshire	7 15 0	1 1/2	1 1/2	0 5 0	0 5 0	July 31, 1886.	400	Redhill Mining (L.)	1 0 0	10
400	Budnick Consols (tin), Perran	2 2 6	4 1/2	4 1/2	0 10 0	0 10 0	March 26, 1887.	12000	Redmoor (copper and tin)	0 2 0	24
6000	Bwlch (silver-lead), Cardiganshire	3 5 6	1 1/2	1 1/2	0 2 6	0 2 6	July 30, 1886.	4096	Reapry (copper)	0 3 6	24
4096	Calstock Consols (copper)	5 0 0	4 1/2	4 1/2	0 2 6	0 2 6	Dec. 23, 1887.	5000	Ritter Castle Mining (L.)	1 4 6	14
1000	Carn Brea (copper, tin), Illogan	15 0 0	52 1/2	52 1/2	241 10 0	2 0 0	May 21, 1888.	10000	River Tamar Copper (L.)	0 5 0	10
2048	Carnvorth (tin), St. Just	4 10 0	5 1/2	5 1/2	0 15 0	0 3 0	June 16, 1886.	6000	Rosewall Hill and Ransom Unit	2 0 0	24
200	Cefn Cwm Brynno (lead), Cardiganshire	33 0 0	43	43	5 0 0	2 0 0	March 25, 1888.	1024	Rosewarne & Herland United	2 10 0	24
2000	Collaun (copper), Lantonn	5 0 0	15	15 1/2	2 5 0	0 8 0	Dec. 2, 1887.	15000	Roudean Colliery (L.)	1 6 6	16
250	Conduarwen (copper, tin), Camborne [S.E.]	20 0 0	65	60 70	25 0 0	2 0 0	June 10, 1887.	6000	Severn Mines (lead) [L.]	1 6 6	16
12000	Copper Miners of England	25 0 0	27	27 1/2	7 1/2 per cent.	Half-yearly.		4000	Sidney Wheel Buller (tin)	4 7 0	7
300000	Ditto ditto (stock)	100 0 0	27	27 1/2	7 1/2 per cent.	Half-yearly.		200	Shropshire Blackwood (L.)	5 0 0	10
1055	Craddock Moor (copper), St. Cleer	8 0 0	37 1/2	34 36	1 9 0	0 5 0	May 14, 1888.	512	South Bassett (copper), Gwennap	2 0 8	7
30000	Craven Moor, Limited (lead), Yorkshire	0 10 0	3 1/2	3 1/2	0 9 0	0 9 0	Feb. 28, 1886.	1300	South Bag (id.), Shrop.	5 12 6	12
128	Cwmystwith (lead), Cardiganshire	60 0 0	200	200	125 0 0	5 0 0	May 6, 1888.	6400	South Buller & W. Pensturlath	0 10 0	24
280	Derwent Mines (silver-lead), Durham	300 0 0	150	150	122 0 0	10 0 0	June 25, 1887.	6000	South Carn Brea (cop.) [S.E.]	2 0 0	24
4076	Devon and Cornwall (copper)	4 6 3	13 1/2	13	0 7 6	0 2 6	April 20, 1888.	6000	South Clifford Unit, Gwennap	0 10 0	24
1024	Devon Great Consols (cop.), Tavistock [S.E.]	1 0 0	480	480 490	617 0 0	8 0 0	May 21, 1888.	6144	S. Conduarwen (tin, cop.) Camb.	0 11 6	16
672	Ding Dong (tin), Gwilt	33 15 0	16	16	16 7 6	1 10 0	March 2, 1887.	3502	So. Crenner (cop), Wendron	6 5 0	12
175	Dolcoath (copper, tin), Camborne	257 15 0	270	270 280	960 0 0	7 0 0	Jan. 14, 1888.	6000	South Crowndale (copper)	—	—
12800	Drake Walls (tin, copper), Calstock	2 0 0	1 1/2	1 1/2	0 13 6	0 2 0	Sept. 11, 1887.	6000	South Cuddra (cop.), St. Aust.	0 16 0	16
300	East Daren (lead), Cardiganshire	32 0 0	115	115 120	45 0 0	3 0 0	June 11, 1888.	6000	S. Dulcoth & Carnarthen Con.	1 10 0	10
2048	East Falmouth (copper), Falmouth	2 0 0	3	3	0 7 6	0 2 6	Jan. 25, 1888.	256	South Garmas, Kenwyn	26 0 0	70
128	East Pool (tin, copper), Pool, Illogan	24 5 0	175	175	297 10 0	2 10 0	Feb. 22, 1888.	2000	South Gerland (cop.), Redruth	5 0 0	3
1024	East Wheel Margaret (tin, copper)	7 17 6	8	8 1/2	0 5 0	0 5 0	Jan. 11, 1884.	2000	South Herland and Reliance	1 5 0	3
5700	Exmouth (silver-lead), Christow	4 14 0	8	8	0 15 0	0 2 6	April 27, 1888.	6000	So. Hingston (tin), Calstock	0 2 0	2
1400	Eyan Mining Company (lead), Derbyshire	5 0 0	40	38	17 13 4	1 0 0	May 4, 1888.	6000	South Lady Bertha (copper)	0 16 0	16
4340	Fowey Consols (copper), Tywardreath	4 0 0	4	4 1/2	41 4 3	0 6 0	Feb. 17, 1887.	512	South Penhalidra (tin)	3 0 0	4
4448	General Mining Co. for Ireland (cop., lead)	4 0 0	2 1/2	2 1/2	1 0 8	0 3 0	Jan. 5, 1883.	5337	So. Phenix (cop.) Linkin	4 10 0	3 1/2
250	Gedraun (silver-lead), Cardiganshire	11 5 0	2 1/2	2 1/2	22 0 0	0 5 0	Sept. 5, 1880.	1024	So. Providence (tin), Sidhney	3 7 0	5
1024	Gedraun (copper), St. Cleer	13 15 0	11	11 1/2	0 7 6	0 2 6	Jan. 21, 1882.	1105	So. Wh. Croft (cop.), Illogan	1 18 0	10
247	Gedraun and St. Anby (copper)	109 10 0	115	112 117 1/2	10 0 0	3 0 0	May 5, 1888.	1024	So. Wh. Eilen (cop.), St. Agnes	5 18 4	4
6000	Great South Tolgus (S.E.)	0 14 6	15	14 1/2	2 6 6	0 5 0	June 17, 1888.	400	So. Wh. Eilen (cop.), Camb.	0 10 0	14
26666	Great Wheel Vol (tin, cop.), Helston [S.E.]	8 7 6	13 1/2	13 1/2	0 5 0	0 5 0	Oct. 22, 1885.	6000	So. Wh. Wrey (lead), St. Ive	0 1 6	6
119	Great Work (tin), Gernoe	100 0 0	100	100	221 10 0	7 10 0	Feb. 27, 1887.	4000	Snow Rock, Plynlimon [S.E.]	2 0 0	2
1024	Herodotus (lead), near Liskeard	8 10 0	8	8 1/2	4 7 6	0 12 6	Jan. 11, 1888.	2308	St. Austell Consols (tin, cop.)	3 6 0	12
6000	Hingston Down Consols (copper), Calstock	3 10 0	5 1/2	5 1/2	2 16 0	0 2 6	Nov. 25, 1886.	60	Staffordshire Iron Ore (L.)	100 0 0	10
2000	Holyford (copper), near Tipperary	11 0 0	8 1/2	8 1/2	4 2 6	0 5 0	Jan. 28, 1887.	1000	Stoney Way (L.)	1 0 0	14
2560	Isle of Man, Limited (lead)	25 0 0	42	42	58 8 3	1 11 0	June 22, 1888.	920	Stray Park (cop. and tin)	12 5 3	3
76	Jamaica (lead), Mold, Flintshire	3 13 6	—	—	380 0 0	5 0 0	March 10, 1881.	6000	Sunny Side (id., iron), Durham	1 0 0	2
20	Laxey Mining Company, Isle of Man	100 0 0	1000	1000	1420 0 0	50 0 0	June 30, 1887.	1280	Swanpool (lead), Budock	12 18 7	3
180	Levant (copper, tin), St. Erth	2 10 0	115	110 120	1066 0 0	2 0 0	May 18, 1888.	5000	Talesin (silver-lead) [L.]	5 0 0	—
5000	Lewis Mines (tin, copper), St. Erth	6 11 2	2	2 1/2	0 10 0	0 10 0	Dec. 20, 1885.	2000	Tasman Mining	5 14 6	14
400	Lisburne (lead), Cardiganshire, Wales	18 15 0	120	120	313 10 0	3 0 0	June 1, 1888.	2554	Tay Con. (cop., near Tavy)	5 14 6	14
6000	Marke Valley (copper), Caradon	4 10 6	2 1/2	2 1/2	0 5 6	0 3 0	Sept. 7, 1885.	6000	Tees Side (id.), Cumberland	1 11 6	11
5000	Mendip Hills (lead), Somerset	3 15 0	1 1/2	1 1/2	1 7 6	0 5 0	May 29, 1887.	1000	Tokernay Consols, Liskeard	10 2 0	1
5000	Merilyn (lead), Flint	3 2 6	1 1/2	1 1/2	1 11 0	0 2 6	June 22, 1883.	4000	Tolvalden (cop.), Marazion	—	—
1800	Minera Mines, Limited (lead), Wrexham	25 0 0	125	125	30 2 6	3 0 0	May 8, 1888.	1024	Trebarah (cop.), Penryn	9 8 4	14
2000	Mining Company of Ireland (cop., lead, coal)	7 0 0	17 1/2	15 1/2	13 13 4	0 5 0	July 1, 1888.	5000	Trebrigg, Cwman [L.]	5 0 0	5
5000	Nantes and Penrhyn, Limited (2 1/2% shares)	1 17 6	1 1/2	1 1/2	0 1 6	0 1 6	April 30, 1885.	2048	Trebrigg (sil.-id.), Menheniot	0 15 0	15
6000	Nether Heath, Westmoreland	0 7 0	1	1 1/2	0 2 0	0 1 0	May 21, 1886.	5000	Trevelth (cop.), St. Erth	4 6 0	6
470	Newtons Mining Company, Co. Down	50 0 0	35	35	54 0 0	1 0 0	May 1, 1888.	6000	Trevelth (copper), Cury	4 6 0	6
200	North Pool (copper, tin), Pool	36 10 3	60	55 65	324 0 0	2 0 0	Dec. 26, 1884.	2000	Trevelth (copper), Cury	4 6 0	6
700	North Rosebar (copper), Camborne	12 0 0	24	18 20	750 0 0	4 0 0	Sept. 26, 1883.	6000	Trevelth (tin, cop.), Altarnun	1 2 6	12
6000	North Wheel Bassett (cop., tin), Illogan [S.E.]	nif.	10 1/2	10 10 1/2	14 7 0	0 8 0	Feb. 24, 1888.	2048	Trevelth (tin, cop.), Altarnun	7 10 0	5
6400	Par Consols (copper), St. Blazey [S.E.]	1 2 6	20	18 19	31 14 0	0 10 0	March 2, 1888.	5000	Trevelth and Trevelthene	3 15 0	1
500	Peak Uad (lead), North Derbyshire	7 15 0	2 1/2	2 1/2	4 10 0	0 10 0	April 12, 1886.	3000	Trevelth Consols, St. Austell	0 20 0	—
200	Phenix (copper, tin), Linkin	100 0 0	370	370	269 0 0	25 0 0	May 5, 1888.	6000	Trevelth (tin, cop.), Altarnun	1 2 6	12
1000	Polbrean (tin), St. Agnes (Preferential)	15 0 0	5	5	18 11 9	1 0 0	July 11, 1887.	1000	Trevelth (tin, cop.), Altarnun	1 2 6	12
1772	ditto ditto (Old and ditto)	20 13 2	5	5	1 0 0	0 10 0	March 2, 1888.	5000	Trevelth (tin, cop.), Altarnun	1 2 6	12
560	Providence Mines (tin), Uny Lelant	20 13 2	55 60	55 60	74 4 6	2 0 0	May 27, 1888.	1024	Trevelth (tin, cop.), Altarnun	1 2 6	12
2500	Rhewydol and Bachelidon (lead)	11 5 0	12	12 12 1/2	0 13 0	0 3 0	Oct. 21, 1887.	1000	Trevelth (tin, cop.), Altarnun	1 2 6	12
512	Rosewarne United (copper, tin), Gwennap	12 0 0	20	20	32 10 0	1 0 0	June 8, 1887.	1000	Trevelth (tin, cop.), Altarnun	1 2 6	12
15000	Roudean Colliery Company, Limited	0 5 0	9 1/2	9 1/2	0 10 0	0 6 0	Feb. 4, 1888.	25000	West Par Con. (cop.) St. Blazey	1 5 0	15
12000	Sortridge Consols (cop.), Whitchurch [S.E.]	0 6 0	1 1/2	1 1/2	0 10 0	0 2 6	July 27, 1887.	854	West Portkellie (tin), Wendron	0 10 0	1
256	South Caradon (copper), St. Cleer [S.E.]	2 10 0	400	395 400	520 0 0	10 0 0	May 24, 1888.	1024	West Rosewall United (cop.)	8 0 0	14
128	South Crinis (copper), St. Austell	19 0 0	285	285	60 0 0	20 0 0	May 18, 1885.	256	West Sharp Top (cop.) Bilton	43 0 0	30
512	South Tolgus (copper), Redruth, Cornwall	8 0 0	70	67 70	75 0 0	1 0 0	May 30, 1888.	6000	West Small Beach (lead)	1 0 0	1
496	South Wheel Frances, Illogan [S.E.]	18 15 9	230	225	294 5 0	7 0 0	May 3, 1888.	1024	West Stray Park (cop.) Camb.	2 15 0	5
1024	Spearmoor (tin), St. Just, Cornwall	3 12 0	1 1/2	1 1/2	8 8 6	0 2 6	Dec. 10, 1883.	1024	West Trefus (cop.), Gwennap	0 5 0	1
280	Spearmoor (copper), St. Just	23 7 8	15	15	4 5 0	0 10 0	June 13, 1886.	5120	West Trefus (cop.), Gwennap	0 5 0	1
970	St. Aubyn and Gwilt (cop., tin), Breage	6 8 4	4 1/2	4 1/2	0 17 6	0 7 4	April 1, 1882.	512	West Trefus (cop.), Gwennap	0 5 0	1
20000	St. Day United (tin and copper)	2 0 0	7 1/2	7 1/2	0 17 6	0 7 4	April 1, 1882.	10000	West Wheel Frances (tin, cop.)	2 19 6	19
470	St. Ives Consols (tin), St. Ives	16 0 0	32 1/2	32 1/2	916 0 0	1 10 0	May 18, 1888.	2500	West Wheel Frances (tin, cop.)	2 19 6	19
9600	Tamar Consols (silver-lead), Beccles [S.E.]	4 10 0	1	1	4 13 6	0 2 6	Feb. 7, 1886.	2500	West Wheel Frances (tin, cop.)	2 19 6	19
6000	Tarnoff (copper, tin), Pool, Illogan [S.E.]	9 0 0	3 1/2	3 1/2	8 13 6	0 10 0	Feb. 18, 1888.	5000	West Wheel Frances (tin, cop.)	2 19 6	19
572	Trevelth Consols (tin), St. Ives	11 10 0	9 1/2	9 1/2	1 15 0	1 0 0	Feb. 21, 1884.	4000	West Wheel Frances (tin, cop.)	2 19 6	19
96	Trevelth Consols (tin), Gwennap, Cornwall	42 10 0	60	60 65	467 15 0	5 0 0	June 4, 1885.	6000	West Wheel Frances (tin, cop.)	2 19 6	19
120	Trevelth Consols (tin), Gwennap, Cornwall	15 10 0	15	15	403 13 6	2 10 0	April 29, 1881.	6000	West Wheel Frances (tin, cop.)	2 19 6	19
4000	Trevelth (copper, tin), Bodmin	1 3 6	1	1 1/2	0 5 0	0 5 0	July 8, 1886.	6000	West Wheel Frances (tin, cop.)	2 19 6	19
4096	Trevelth (silver-lead), Menheniot, Cornwall	2 14 0	7	7	1 12 0	0 3 0	April 2, 1887.	100	Wheat Fortune, Breage	27 13 0	13
100	Trevelth Consols (tin), near Helston	95 0 0	10	10 12 1/2	55 0 0	5 0 0	Dec. 20, 1887.	10000	Wheat Fortune (tin), Camb.	6 6 6	6
400	United Mines (copper), Gwennap [S.E.]	40 0 0	100	100	61 5 0	2 0 0	Feb. 12, 1886.	8634	Wheat Fortune (tin), Camb.</		